KV-1830AS

Australian Model

Chassis No. SCC-112A-A

SONY
TRINITRON

TRINITRON®
COLOUR TV

SPECIFICATIONS

Television System:	Australian TV standards CCIR system B
Colour System:	PAL
Picture Tube:	44cm, 18" (screen measured diagonally), 114° deflection TRINITRON system
Semiconductors:	1 FET, 77 transistors, 66 diodes, 5 ICs and 1 GCS (Gate Controlled Switch) supplied
Aerials:	VHF: 300Ω balanced (telescopic dipole*) 75Ω unbalanced (including slide switch) UHF: 300Ω balanced (loop aerial*) ***Note:** Optional accessories
Channel Coverage:	VHF channels: 0–11 UHF channels: 28–34 and 39–63
Intermediate Frequencies:	Picture i–f carrier: 36.875MHz Colour subcarrier: 32.44MHz Sound i–f carrier: 31.375MHz
Sound System:	5.5MHz intercarrier Output power: 2W (at 10% harmonic distortion) Speaker: 10 cm (4 inches) dia., 8Ω
Video System:	RGB cathode drive
Automatic Controls:	ABL (automatic brightness limiter) ACC (automatic colour control) ACK (automatic colour killer) ADG (automatic degaussing) AFC (automatic frequency control) AFT (automatic fine tuning) AGC (automatic gain control) ANC (automatic noise canceller) AVR (automatic voltage regulator)
Anode Voltage:	25kV at zero beam current
Power Requirements:	110W (max)
Power Consumption:	240V ac, 50Hz
Dimensions:	651(w) x 480(h) x 391(d) mm 25 5/8(W) x 18 7/8(h) x 15 3/8(d) inches
Net Weight:	30kg (66 lb 2 oz)
Accessories:	Earpiece (ME-20B) Instruction manual Waranty card

X-RAY RADIATION WARNING !!

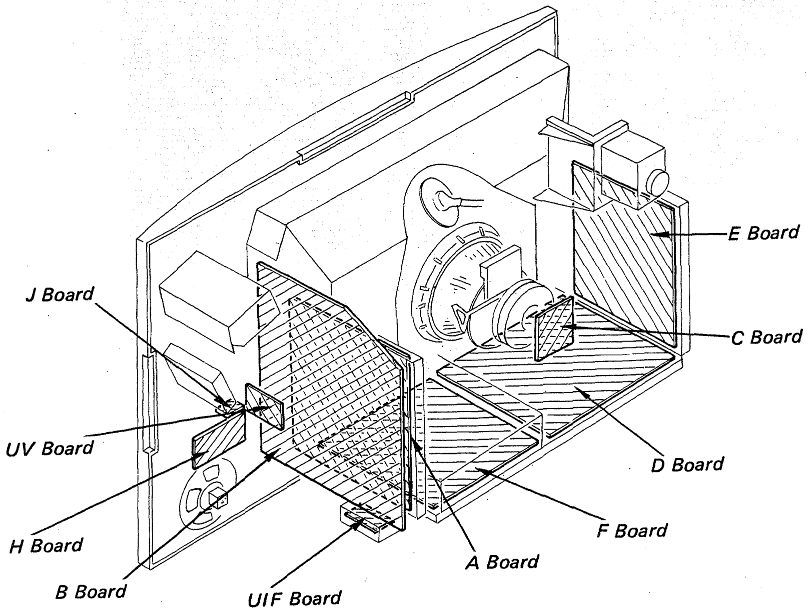
BE SURE THAT PARTS REPLACEMENT IN THE HIGH VOLTAGE BLOCK AND ADJUSTMENTS MADE TO THE HIGH VOLTAGE CIRCUITS ARE CARRIED OUT PRECISELY IN ACCORDANCE WITH THE PROCEDURES GIVEN IN THIS MANUAL.

WARNING !!

TO ELIMINATE SHOCK HAZARD AND PROTECT EQUIPMENT WHEN SERVICING THE SET WITH THE COVERS REMOVED, MAKE SURE THAT THE SET IS PLUGGED INTO A SUITABLY–RATED ISOLATION TRANSFORMER.

SONY®

SERVICE MANUAL


E Board
J Board
C Board
UV Board
D Board
H Board
F Board
A Board
B Board
UIF Board

SECTION 1
BLOCK DIAGRAM

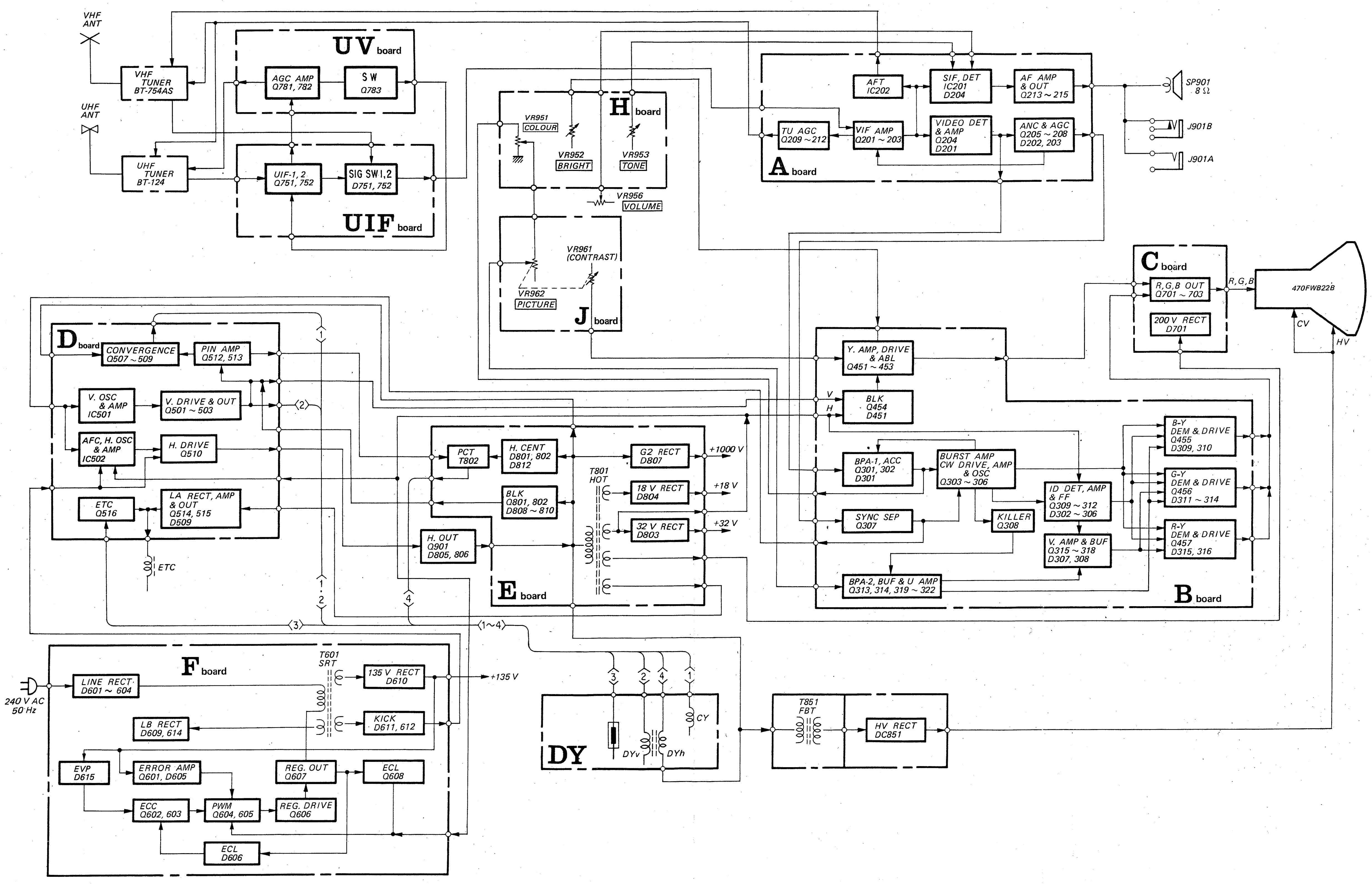

VHF ANT
VHF TUNER BT-754AS
UHF ANT
UHF TUNER BT-124
UV board
AGC AMP Q781, 782
SW Q783
UIF-1, 2 Q751, 752
SIG SW1,2 D751, 752
UIF board
H board
VR951 COLOUR
VR952 BRIGHT
VR953 TONE
VR956 VOLUME
VR961 (CONTRAST)
VR962 PICTURE
J board
AFT IC202
SIF, DET IC201 D204
AF AMP & OUT Q213 ~ 215
TU AGC Q209 ~ 212
VIF AMP Q201 ~ 203
VIDEO DET & AMP Q204 D201
ANC & AGC Q205 ~ 208 D202, 203
A board
SP901 8 Ω
J901B
J901A
C board
R, G, B OUT Q701 ~ 703
200 V RECT D701
R, G, B
470FWB22B
CV
HV
D board
CONVERGENCE Q507 ~ 509
PIN AMP Q512, 513
V. OSC & AMP IC501
V. DRIVE & OUT Q501 ~ 503
AFC, H. OSC & AMP IC502
H. DRIVE Q510
ETC Q516
LA RECT, AMP & OUT Q514, 515 D509
ETC
1
2
3
4
1~4
PCT T802
H. CENT D801, 802 D812
BLK Q801, 802 D808 ~ 810
H. OUT Q901 D805, 806
T801 HOT
G2 RECT D807
18 V RECT D804
32 V RECT D803
+1000 V
+18 V
+32 V
E board
Y. AMP, DRIVE & ABL Q451 ~ 453
V
H
BLK Q454 D451
BPA-1, ACC Q301, 302 D301
BURST AMP CW DRIVE, AMP & OSC Q303 ~ 306
ID DET, AMP & FF Q309 ~ 312 D302 ~ 306
KILLER Q308
SYNC SEP Q307
V. AMP & BUF Q315 ~ 318 D307, 308
BPA-2, BUF & U AMP Q313, 314, 319 ~ 322
B-Y DEM & DRIVE Q455 D309, 310
G-Y DEM & DRIVE Q456 D311 ~ 314
R-Y DEM & DRIVE Q457 D315, 316
B board
F board
240 V AC 50 Hz
LINE RECT D601 ~ 604
T601 SRT
135 V RECT D610
+135 V
KICK D611, 612
LB RECT D609, 614
EVP D615
ERROR AMP Q601, D605
REG. OUT Q607
ECL Q608
ECC Q602, 603
PWM Q604, 605
REG. DRIVE Q606
ECL D606
3
2
4
1
CY
DY
DYv
DYh
T851 FBT
HV RECT DC851

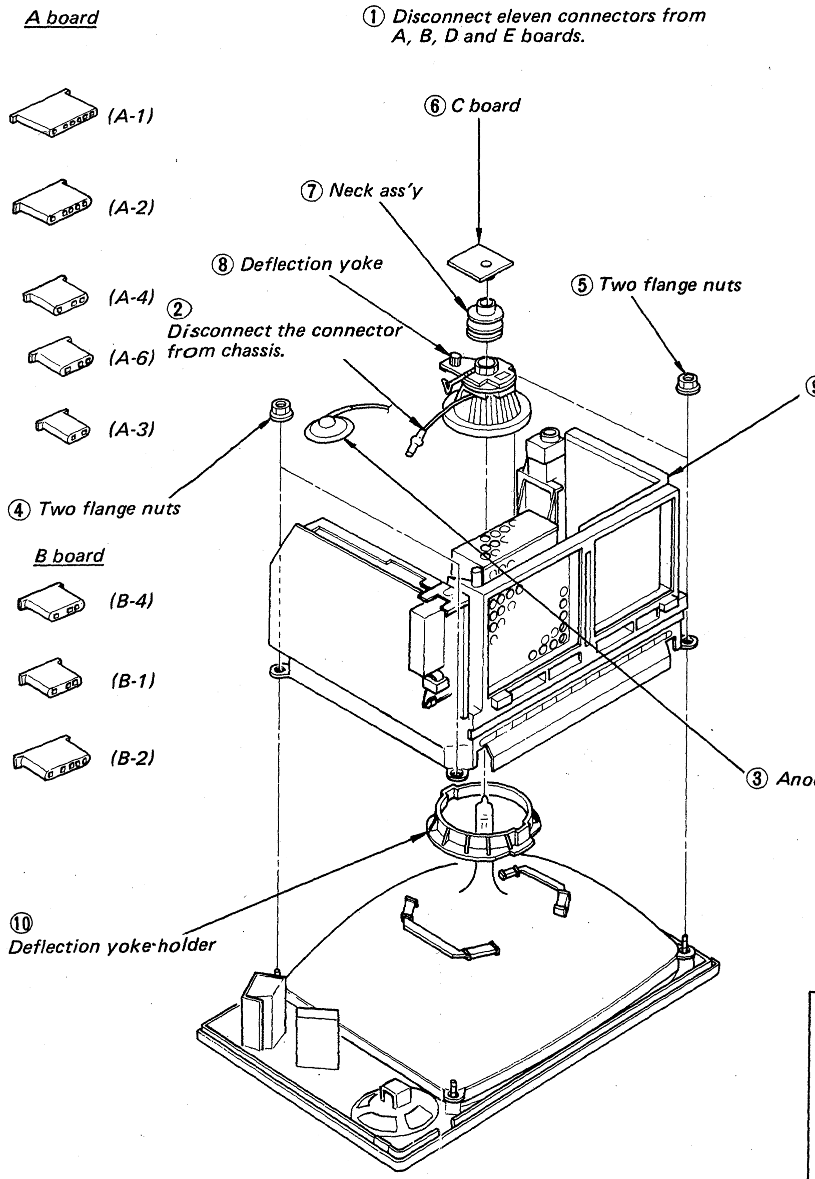
Fig. 1-1 Block Diagram

SECTION 2
DISASSEMBLY

2.1 PICTURE TUBE REMOVAL

Perform the procedures in numerical order.

Note: All screws in this set are Phillips (cross recess) type unless otherwise noted.


A board
(A-1)
(A-2)
(A-4)
(A-6)
(A-3)
B board
(B-4)
(B-1)
(B-2)

① Disconnect eleven connectors from A, B, D and E boards.

② Disconnect the connector from chassis.

③ Anode cap

④ Two flange nuts

⑤ Two flange nuts

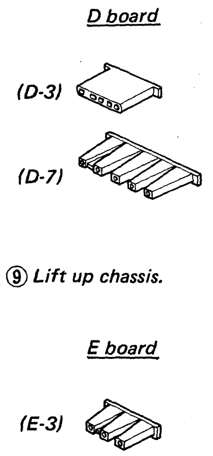
⑥ C board

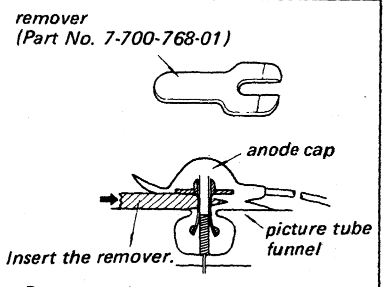
⑦ Neck ass'y

⑧ Deflection yoke

⑨ Lift up chassis.

⑩ Deflection yoke-holder

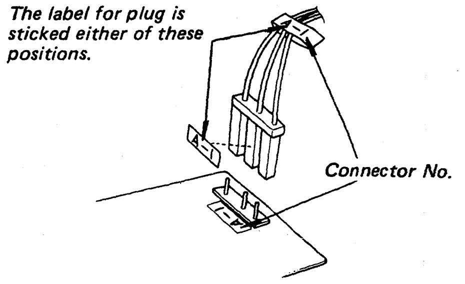

D board
(D-3)
(D-7)
E board
(E-3)


remover
(Part No. 7-700-768-01)
anode cap
picture tube funnel
Insert the remover.

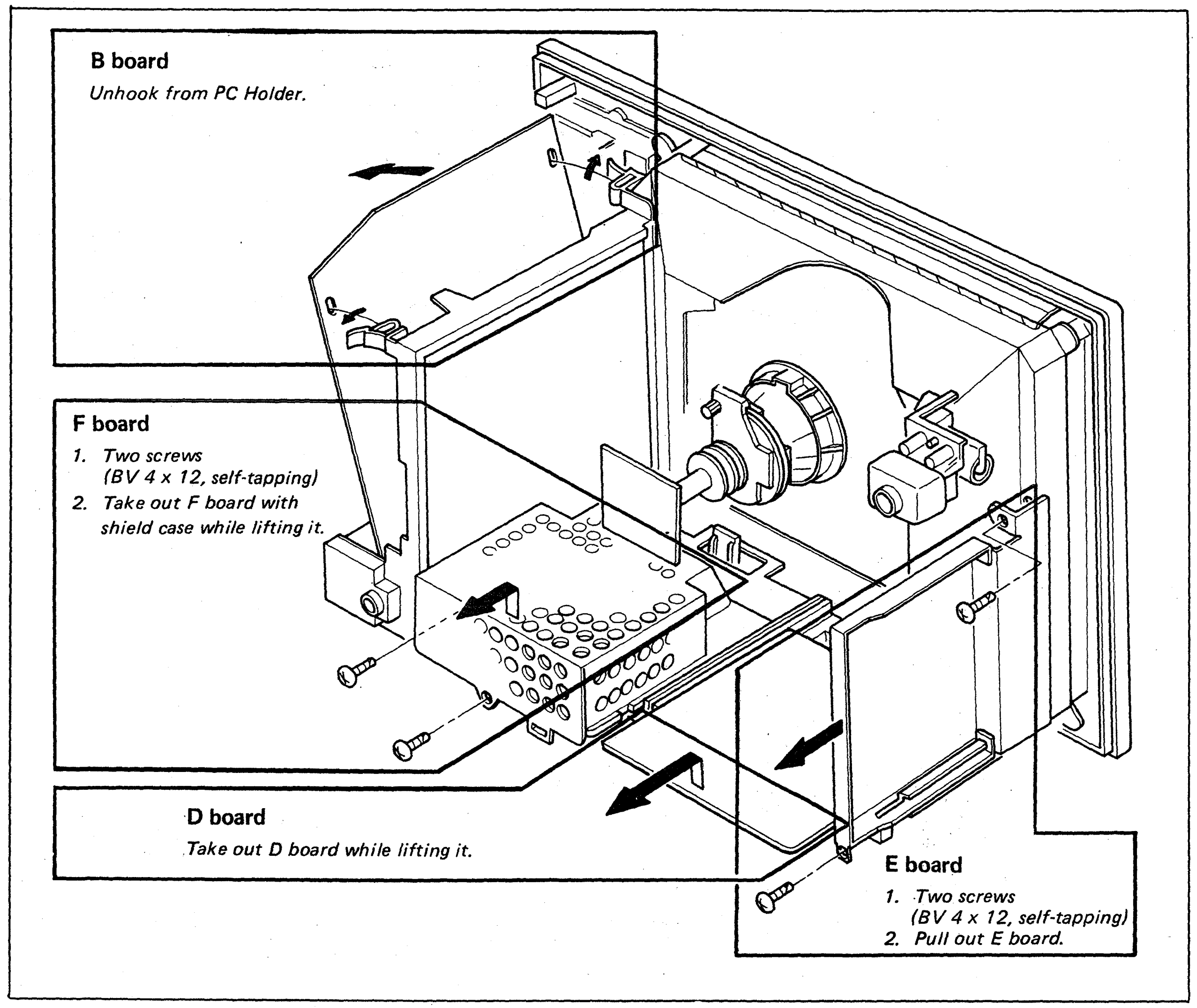
Be sure to short-circuit the anode of picture tube and the anode cap to ground after removing the anode cap.

Note:

This set uses the connectors for junction between the circuit boards. Before attempting to plug them, make sure that the number of plug coincides with that of receptacle as illustrated below.


The label for plug is sticked either of these positions.
Connector No.

2-2 CIRCUIT BOARDS REMOVAL



B board
Unhook from PC Holder.

F board
1. *Two screws (BV 4 x 12, self-tapping)*
2. *Take out F board with shield case while lifting it.*

D board
Take out D board while lifting it.

E board
1. *Two screws (BV 4 x 12, self-tapping)*
2. *Pull out E board.*

Note: When removing the rear cover, take out all the screws marked ⇛ on it.

SECTION 3
SETUP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

Controls and switch should be set as follows:

BRIGHT, PICTURE controls
.... fully clockwise
AFT switch .... ON

3-1. BEAM LANDING ADJUSTMENTS

Preparation:

- Receive the crosshatch pattern.
- Before starting this adjustment, demagnetize the whole screen securely with degausser.

1. Loosen deflection yoke screw.
2. Adjust the purity control as shown in Fig. 3-1.
3. Slide deflection yoke forward as far as it will go.
4. Position neck ass'y.
5. Disconnect the leads ② and ③ on the C board.
6. Turn purity control to centre vertical red band as shown in Fig. 3-2.
7. Slide deflection yoke backward for a uniform red screen.
8. Check green and blue rasters for uniformity. Repeat the steps 6 and 7.
   To get a uniform green screen,
   .... Connect the lead ③ on the C board.
   Disconnect the leads ② and ④.
   To get a uniform blue screen,
   .... Connect the lead ② on the C board.
   Disconnect the leads ③ and ④.
   After these checks, connect the leads ②, ③ and ④.
9. Tighten the deflection yoke screw.
10. Check if mislanding appears at corners a ~ d as shown in Fig. 3-3. If mislanding is observed, correct it as shown in Fig. 3-3.
11. Confirm that mislanding is not observed when the receiver is faced is all directions.

Perform the adjustments in order as follows:

1. Beam Landing Adjustments
2. Convergence Adjustments
3. White Balance Adjustments

Note: Test Equipment Required
1. Colour-bar/pattern generator
2. Degausser

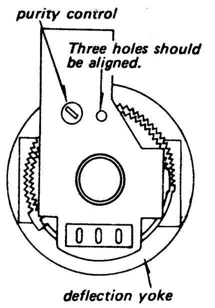

purity control
Three holes should be aligned.
deflection yoke

Fig. 3-1.

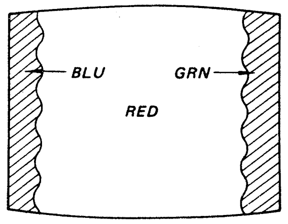


Fig. 3-2.

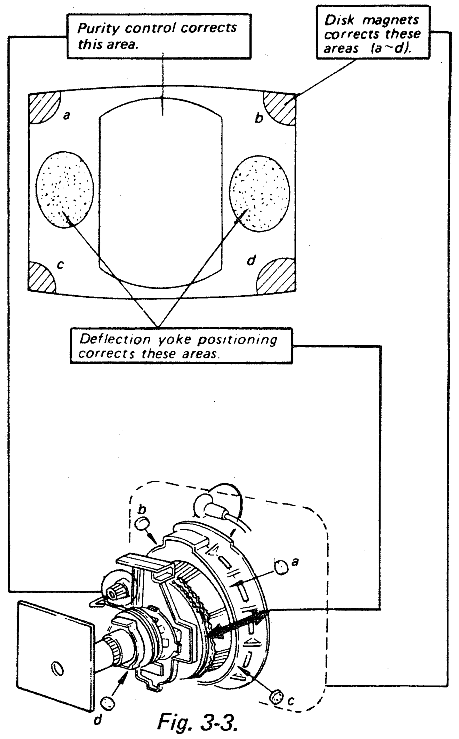
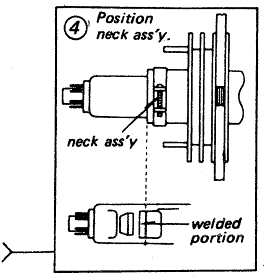
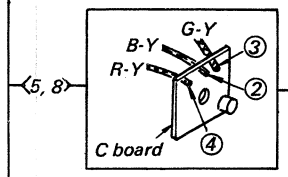
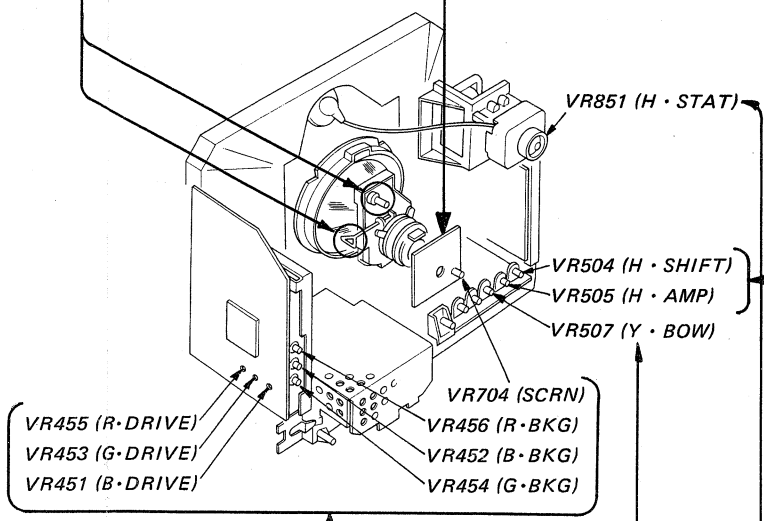

Purity control corrects this area.
Disk magnets corrects these areas (a ~ d).
a
b
c
d
Deflection yoke positioning corrects these areas.
b
a
d
c

Fig. 3-3.


④ Position neck ass'y.
neck ass'y
welded portion
<4>


<5, 8>
B-Y
G-Y
R-Y
③
②
④
C board


VR851 (H · STAT)
VR504 (H · SHIFT)
VR505 (H · AMP)
VR507 (Y · BOW)
VR704 (SCRN)
VR456 (R·BKG)
VR452 (B·BKG)
VR454 (G·BKG)
VR455 (R·DRIVE)
VR453 (G·DRIVE)
VR451 (B·DRIVE)

3-4. WHITE BALANCE ADJUSTMENTS

Receive the crosshatch pattern.

1. Turn BRIGHT and PICTURE controls fully counterclockwise.
2. Turn VR455 (R.DRIVE), VR453 (G.DRIVE) and VR451 (B.DRIVE) fully clockwise.
3. Set VR456 (R.BKG), VR454 (G.BKG), VR452 (B.BKG) to mechanical centre.
4. Turn VR704 (SCRN) slowly to obtain a faintly visible crosshatch. Memorize the color which becomes visible first by turning VR704. Do not turn a BKG control for this colour.
5. Adjust the other two BKG controls for best white balance (neutral gray) at faintly visible screenlight.
6. Turn BRIGHT and PICTURE controls fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

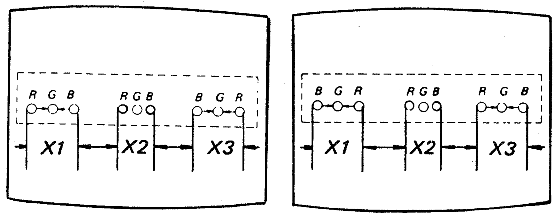
3-3. DYNAMIC CONVERGENCE ADJUSTMENTS

Preparation:

- VR504 (H. SHIFT)
- VR505 (H. AMP) ..... mechanical centre

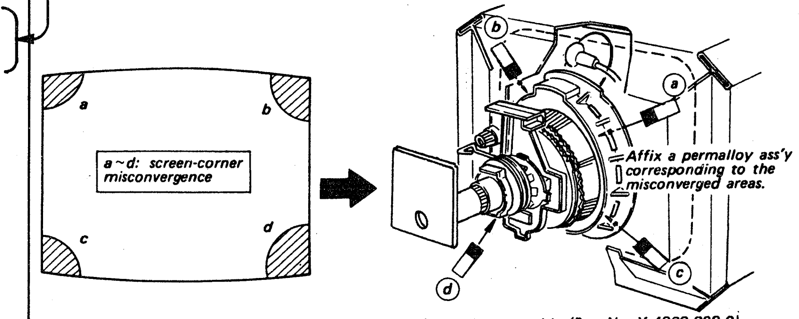
1. Misconvergence at both sides of screen.

1) Adjust VR504 (H. SHIFT) so that X1 is equal to X3.
2) Adjust VR505 (H. AMP) so that X2 is equal to X3.
3) Adjust VR851 for best convergence.
4) Repeat steps 1 ~ 3 two or three times.


R G B
RGB
B G R
X1
X2
X3
B G R
RGB
R G B
X1
X2
X3

2. Screen-corner Convergence

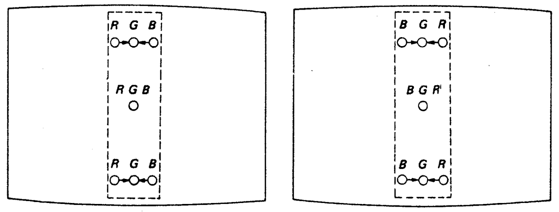
Affix a permalloy ass'y corresponding to the misconverged areas.

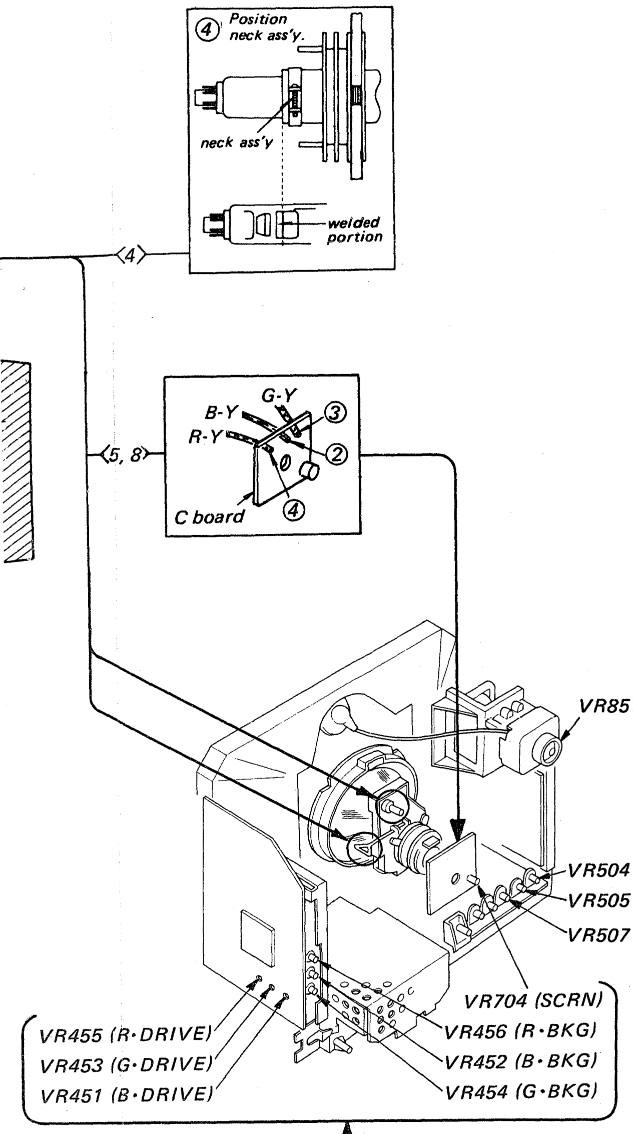

a
b
c
d
a ~ d: screen-corner misconvergence
b
a
d
c
Affix a permalloy ass'y corresponding to the misconverged areas.

Permalloy assembly (Part No. X-4309-608-0)

3. Top and Bottom Misconvergence

1) Adjust VR507 (Y. BOW).


R G B
RGB
R G B
B G R
BGR
B G R


④ Position neck ass'y.
neck ass'y
welded portion
⟨4⟩
G-Y
B-Y
R-Y
③
②
④
C board
⟨5, 8⟩
VR851 (H · STAT)
VR504 (H · SHIFT)
VR505 (H · AMP)
VR507 (Y · BOW)
VR704 (SCRN)
VR456 (R·BKG)
VR452 (B·BKG)
VR454 (G·BKG)
VR455 (R·DRIVE)
VR453 (G·DRIVE)
VR451 (B·DRIVE)

s fully

/E) and

VR452

faintly
which
Do not

5. Adjust the other two BKG controls for best white balance (neutral gray) at faintly visible screenlight.
6. Turn BRIGHT and PICTURE controls fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

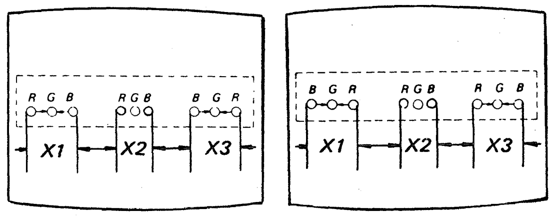
3-3. DYNAMIC CONVERGENCE ADJUSTMENTS

Preparation:

- VR504 (H. SHIFT) ⟩ ..... mechanical centre
- VR505 (H. AMP)

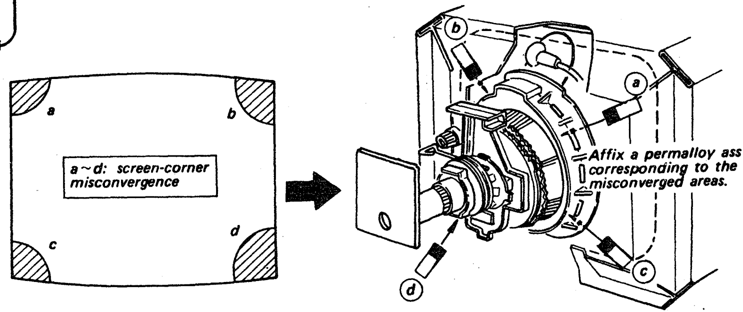
1. Misconvergence at both sides of screen.

1) Adjust VR504 (H. SHIFT) so that X1 is equal to X3.
2) Adjust VR505 (H. AMP) so that X2 is equal to X3.
3) Adjust VR851 for best convergence.
4) Repeat steps 1 ~ 3 two or three times.


R G B
RGB
B G R
X1
X2
X3
B G R
RGB
R G B
X1
X2
X3

2. Screen-corner Convergence

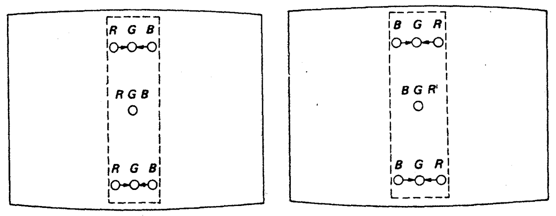
Affix a permalloy ass'y corresponding to the misconverged areas.


a
b
c
d
a ~ d: screen-corner misconvergence
Ⓑ
Ⓐ
Ⓒ
Ⓓ
Affix a permalloy ass'y corresponding to the misconverged areas.

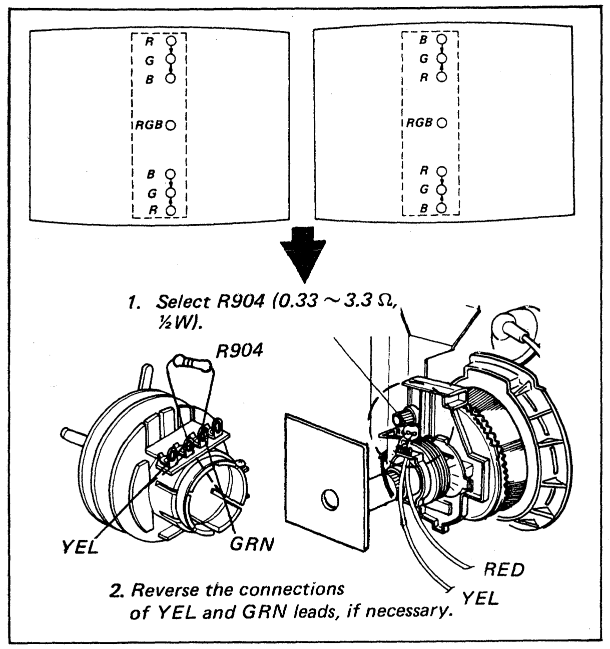
Permalloy assembly (Part No. X-4309-608-0)

3. Top and Bottom Misconvergence

1) Adjust VR507 (Y. BOW).


R G B
RGB
R G B
B G R
BGR
B G R

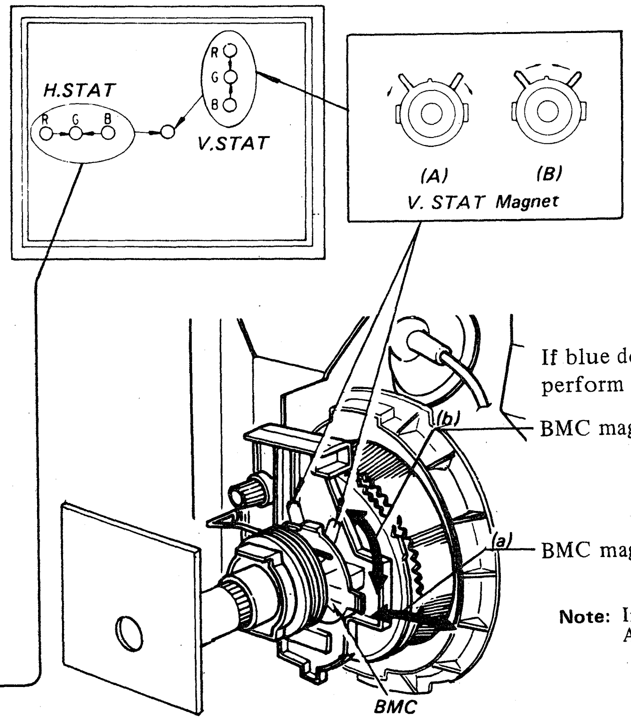
2). Select resistance value of R904 for best convergence.


R
G
B
RGB
B
G
R
B
G
R
RGB
R
G
B
R904
YEL
GRN
RED
YEL

1. Select R904 (0.33 ~ 3.3 Ω, ½W).

2. Reverse the connections of YEL and GRN leads, if necessary.

3-2. HORIZONTAL AND VERTICAL STATIC CONVERGENCE ADJUSTMENTS


H.STAT
R G B
R
G
B
V.STAT
(A)
(B)
V. STAT Magnet
(b)
(a)
BMC

If blue dot does not coincide with red and green dots, perform following steps.

BMC magnet rotation corrects insufficient V. static covergence.

BMC magnet movement corrects insufficient H. static covergence.

Note: In either case, repeat Beam Landing Adjustments.

SECTION 4
CIRCUIT ADJUSTMENTS

Note:

(1) **TEST EQUIPMENT REQUIRED**

1. Oscilloscope
2. Voltmeter (VOM)
3. Colour-bar/pattern generator

(2) **CONTROL SETTING FOR CHECKS AND ADJUSTMENTS**

Controls and switch should be set as follows when performing checks and adjustments unless otherwise noted.

PICTURE control
BRIGHT control
COLOUR control
HUE control
...... Set for best picture
V. HOLD control
...... Set for stable picture
AFT switch
...... ON

(3) **RECEIVING SIGNAL**

When performing these adjustments, receive any of a crosshatch signal, a colour-bar signal or an off-the-air signal.

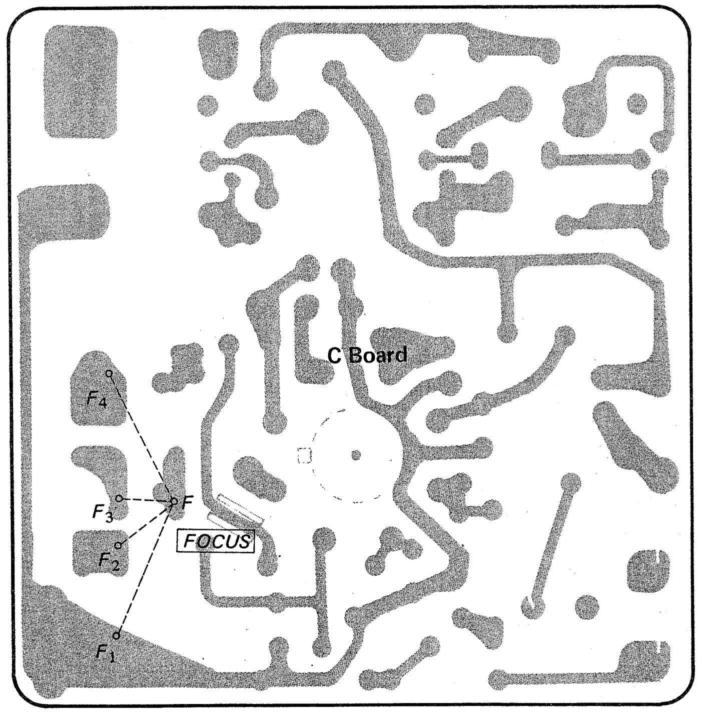
(4) **TABLE OF CONTENTS FOR CIRCUIT ADJUSTMENTS**

Items	Circuit Board	Page
B + (135V) ADJ	F	20
EVP (Excess Voltage Protector) ADJ	F	21
BLANKING ADJ	E	22
H SIZE ADJ	E	23
AFT ADJ	A	11
SOUND (5.5MHz) TRAP ADJ	A	11
SIF ADJ	A	11
DET OUT ADJ	A	12
U and V TUNER AGC ADJ	A	12
PIN AMP AND PIN BIAS ADJ	D	13
H. FREQ ADJ	D	14
FOCUS ADJ	C	10
BAT ADJ	B	15
IDP AND IDC ADJ	B	15
DMP ADJ	B	16
ACC ADJ	B	17
COT ADJ	B	17
VSB ADJ	B	18
4.43MHz TRAP ADJ	B	17
U TUNER AGC ADJ	UV	19

4-1. C BOARD ADJUSTMENT

Focus ADJ

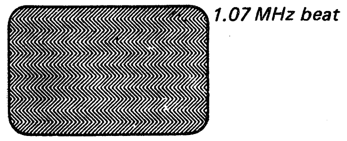
Select one of these connections (F1~F4) for best focus.



4-2. A BOARD ADJUSTMENTS

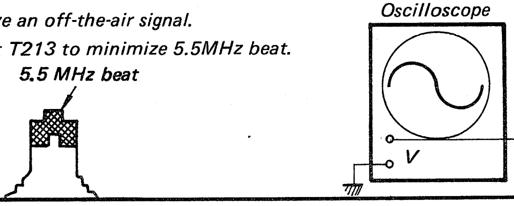
AFT ADJ

1. *Receive an off-the-air signal.*
2. *Set AFT switch to OFF position.*
3. *Turn the fine tuning knob clockwise while depressing it and it counterclockwise to the position where 1.07MHz beat just disappears.*
4. *Set AFT switch to ON position.*
5. *If no-colour or 1.07MHz beat appears on the picture, adjust L213 for best picture.*



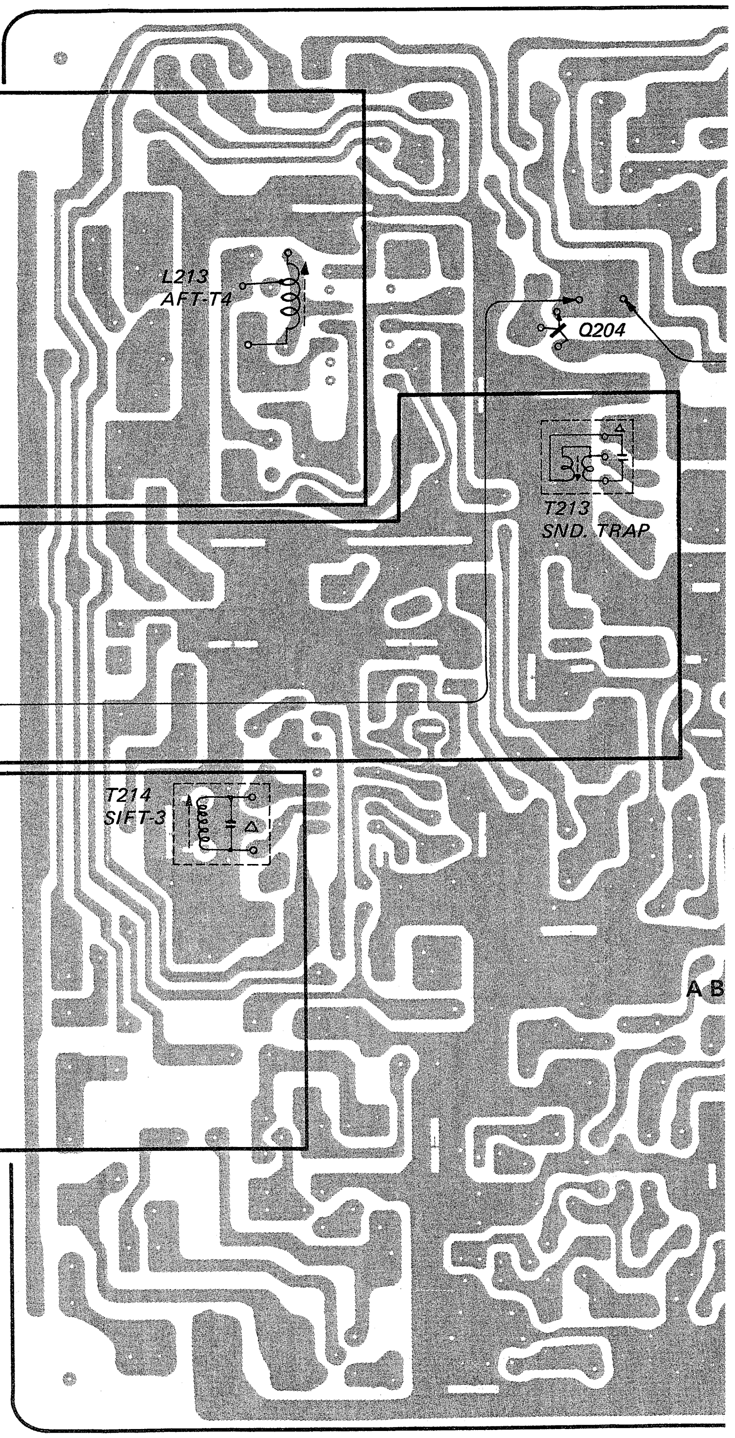
SOUND (5.5MHz) TRAP ADJ

1. *Receive an off-the-air signal.*
2. *Adjust T213 to minimize 5.5MHz beat.*

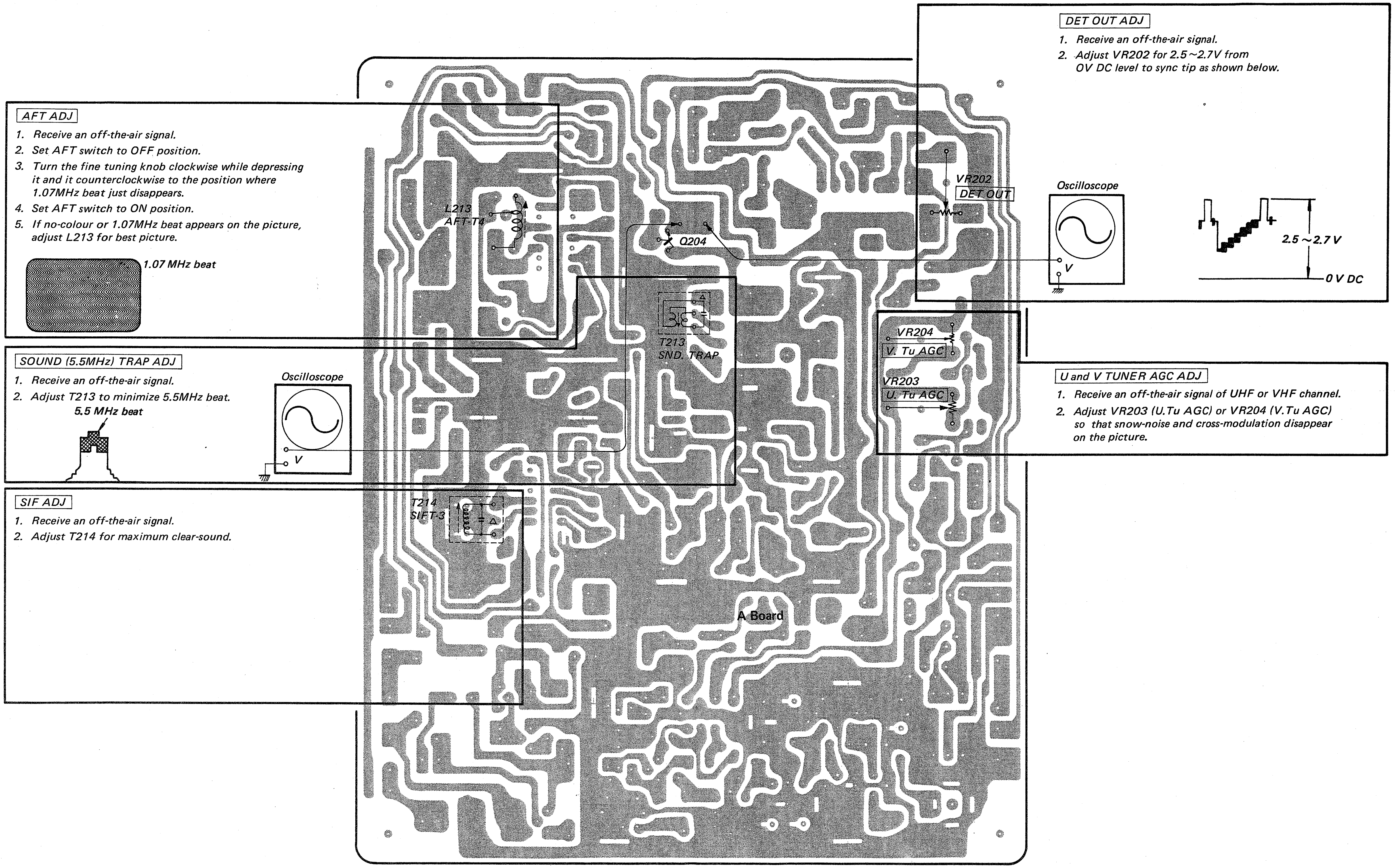


SIF ADJ

1. *Receive an off-the-air signal.*
2. *Adjust T214 for maximum clear-sound.*



4-2. A BOARD ADJUSTMENTS


L213
AFT-T4
Q204
T213
SND. TRAP
T214
SIFT-3
A Board
VR202
DET OUT
VR204
V. Tu AGC
VR203
U. Tu AGC
1.07 MHz beat
5.5 MHz beat
Oscilloscope
V
Oscilloscope
V
2.5 ~ 2.7 V
0 V DC

AFT ADJ

1. Receive an off-the-air signal.
2. Set AFT switch to OFF position.
3. Turn the fine tuning knob clockwise while depressing it and it counterclockwise to the position where 1.07MHz beat just disappears.
4. Set AFT switch to ON position.
5. If no-colour or 1.07MHz beat appears on the picture, adjust L213 for best picture.

SOUND (5.5MHz) TRAP ADJ

1. Receive an off-the-air signal.
2. Adjust T213 to minimize 5.5MHz beat.

SIF ADJ

1. Receive an off-the-air signal.
2. Adjust T214 for maximum clear-sound.

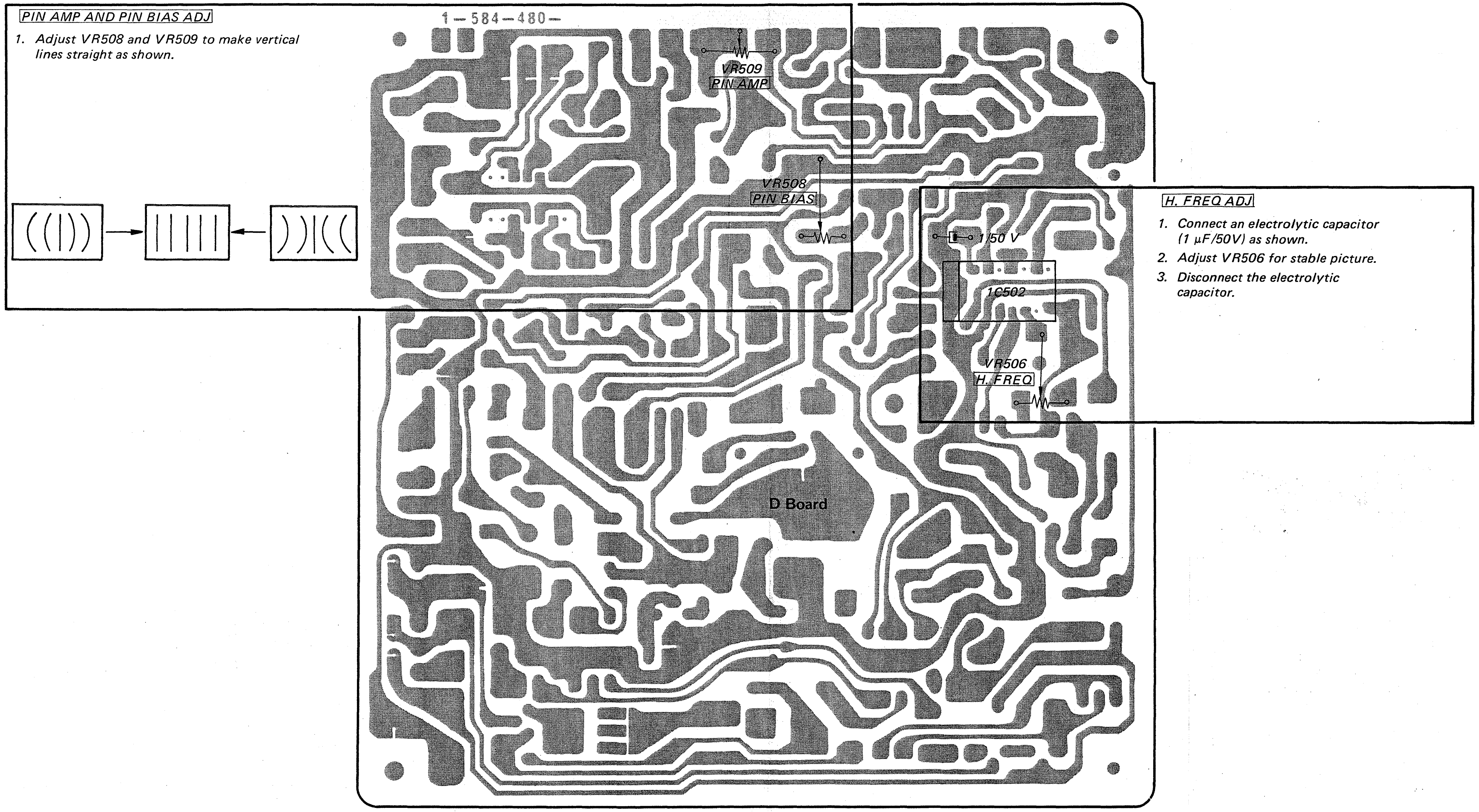
DET OUT ADJ

1. Receive an off-the-air signal.
2. Adjust VR202 for 2.5 ~ 2.7V from 0V DC level to sync tip as shown below.

U and V TUNER AGC ADJ

1. Receive an off-the-air signal of UHF or VHF channel.
2. Adjust VR203 (U.Tu AGC) or VR204 (V.Tu AGC) so that snow-noise and cross-modulation disappear on the picture.

4-3. D BOARD ADJUSTMENTS



PIN AMP AND PIN BIAS ADJ

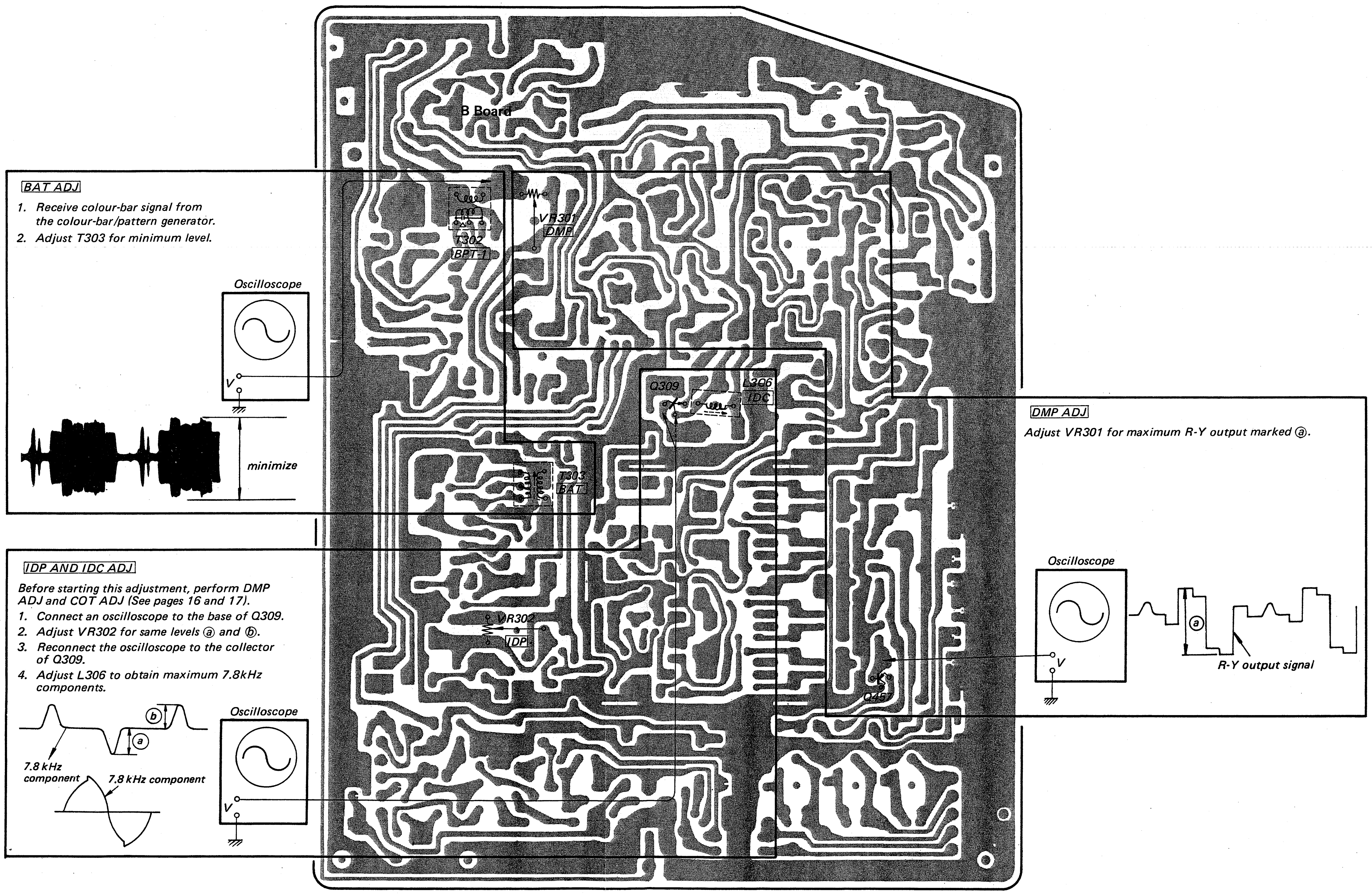
1. *Adjust VR508 and VR509 to make vertical lines straight as shown.*

H. FREQ ADJ

1. *Connect an electrolytic capacitor (1 μF/50V) as shown.*
2. *Adjust VR506 for stable picture.*
3. *Disconnect the electrolytic capacitor.*

1-584-480-
VR509
PIN AMP
VR508
PIN BIAS
1/50 V
IC502
VR506
H. FREQ
D Board

4-4. B BOARD ADJUSTMENTS (1)


B Board
T302
BPT-1
VR301
DMP
Q309
L306
IDC
T303
BAT
VR302
IDP
Q457
Oscilloscope
V
minimize
Oscilloscope
V
ⓑ
ⓐ
7.8 kHz component
7.8 kHz component
Oscilloscope
V
Oscilloscope
V
ⓐ
R-Y output signal

BAT ADJ

1. Receive colour-bar signal from the colour-bar/pattern generator.
2. Adjust T303 for minimum level.

IDP AND IDC ADJ

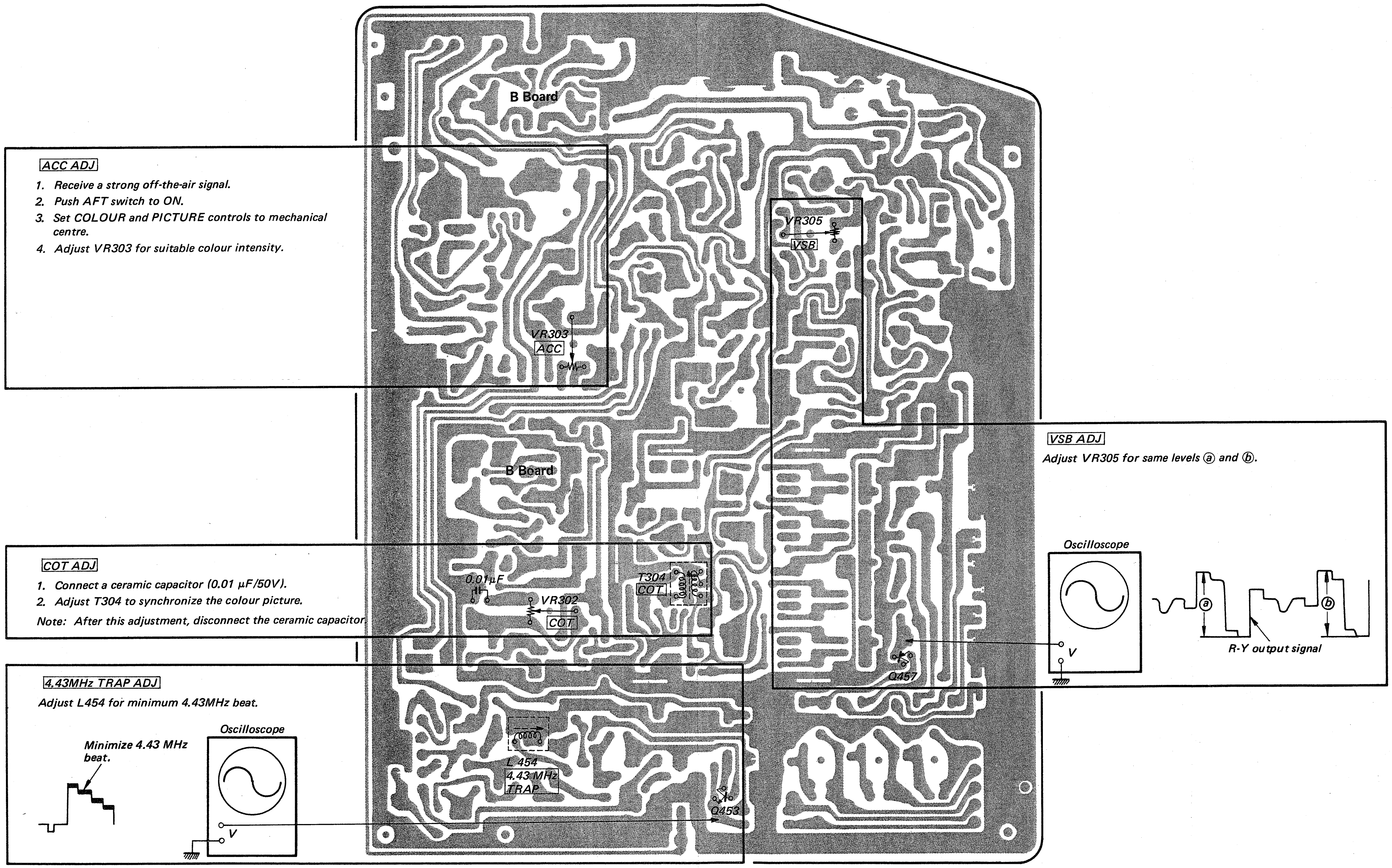
Before starting this adjustment, perform DMP ADJ and COT ADJ (See pages 16 and 17).

1. Connect an oscilloscope to the base of Q309.
2. Adjust VR302 for same levels ⓐ and ⓑ.
3. Reconnect the oscilloscope to the collector of Q309.
4. Adjust L306 to obtain maximum 7.8kHz components.

DMP ADJ

Adjust VR301 for maximum R-Y output marked ⓐ.

4-5. B BOARD ADJUSTMENTS (2)


B Board
B Board
VR303
ACC
VR305
VSB
0.01μF
VR302
COT
T304
COT
L 454
4.43 MHz
TRAP
Q453
Q457
Oscilloscope
V
ⓐ
ⓑ
R-Y output signal
Oscilloscope
V
Minimize 4.43 MHz beat.

ACC ADJ

1. Receive a strong off-the-air signal.
2. Push AFT switch to ON.
3. Set COLOUR and PICTURE controls to mechanical centre.
4. Adjust VR303 for suitable colour intensity.

VSB ADJ

Adjust VR305 for same levels ⓐ and ⓑ.

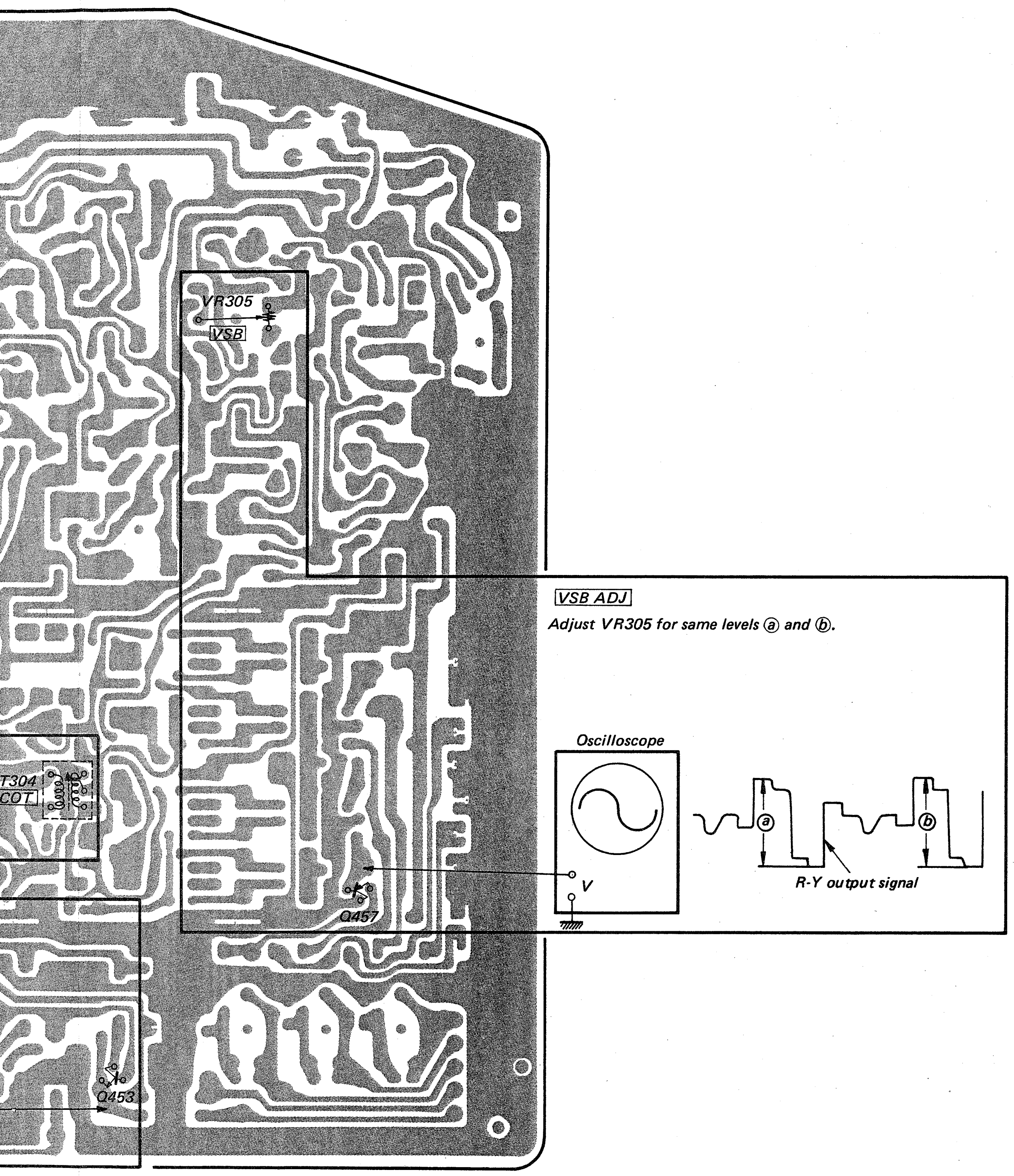
COT ADJ

1. Connect a ceramic capacitor (0.01 μF/50V).
2. Adjust T304 to synchronize the colour picture.

Note: After this adjustment, disconnect the ceramic capacitor.

4.43MHz TRAP ADJ

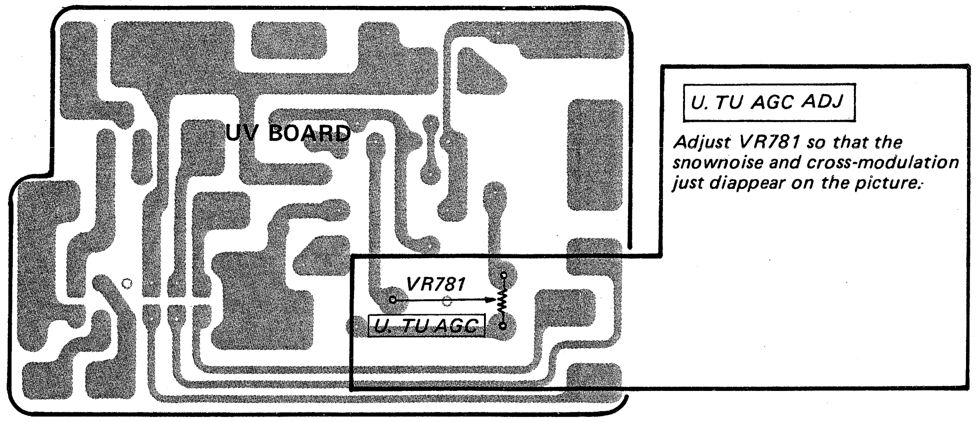
Adjust L454 for minimum 4.43MHz beat.


VR305
VSB
T304
COT
Q457
Q453
Oscilloscope
V
ⓐ
ⓑ
R-Y output signal

VSB ADJ

Adjust VR305 for same levels ⓐ and ⓑ.

4-6. UV BOARD ADJUSTMENT

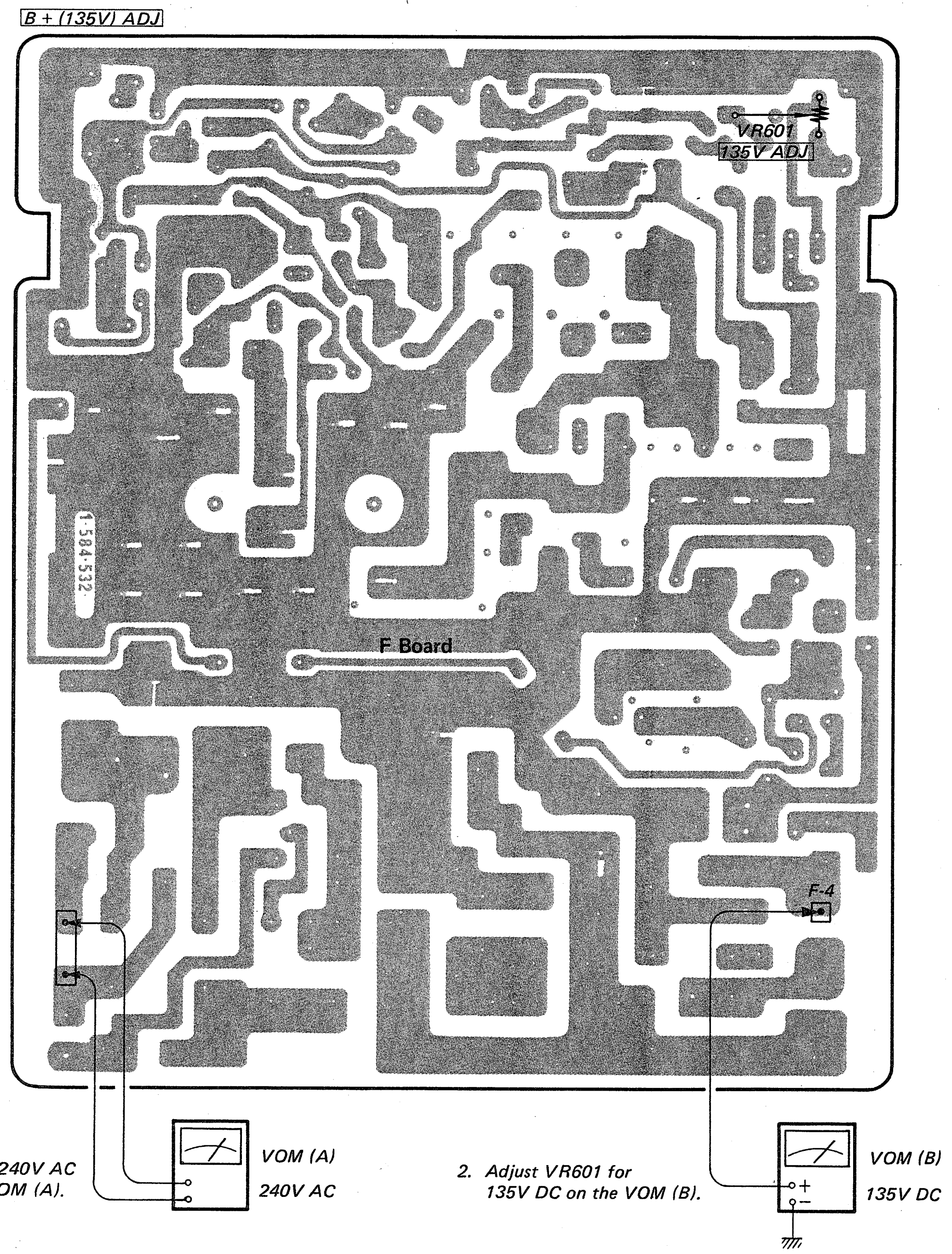

UV BOARD
VR781
U. TU AGC

U. TU AGC ADJ

Adjust VR781 so that the snownoise and cross-modulation just diappear on the picture.

4-7. F BOARD ADJUSTMENTS (1)

B + (135V) ADJ


VR601
135V ADJ
1-584-532
F Board
F-4
VOM (A)
240V AC
VOM (B)
135V DC
+
−

1. Confirm 240V AC on the VOM (A).

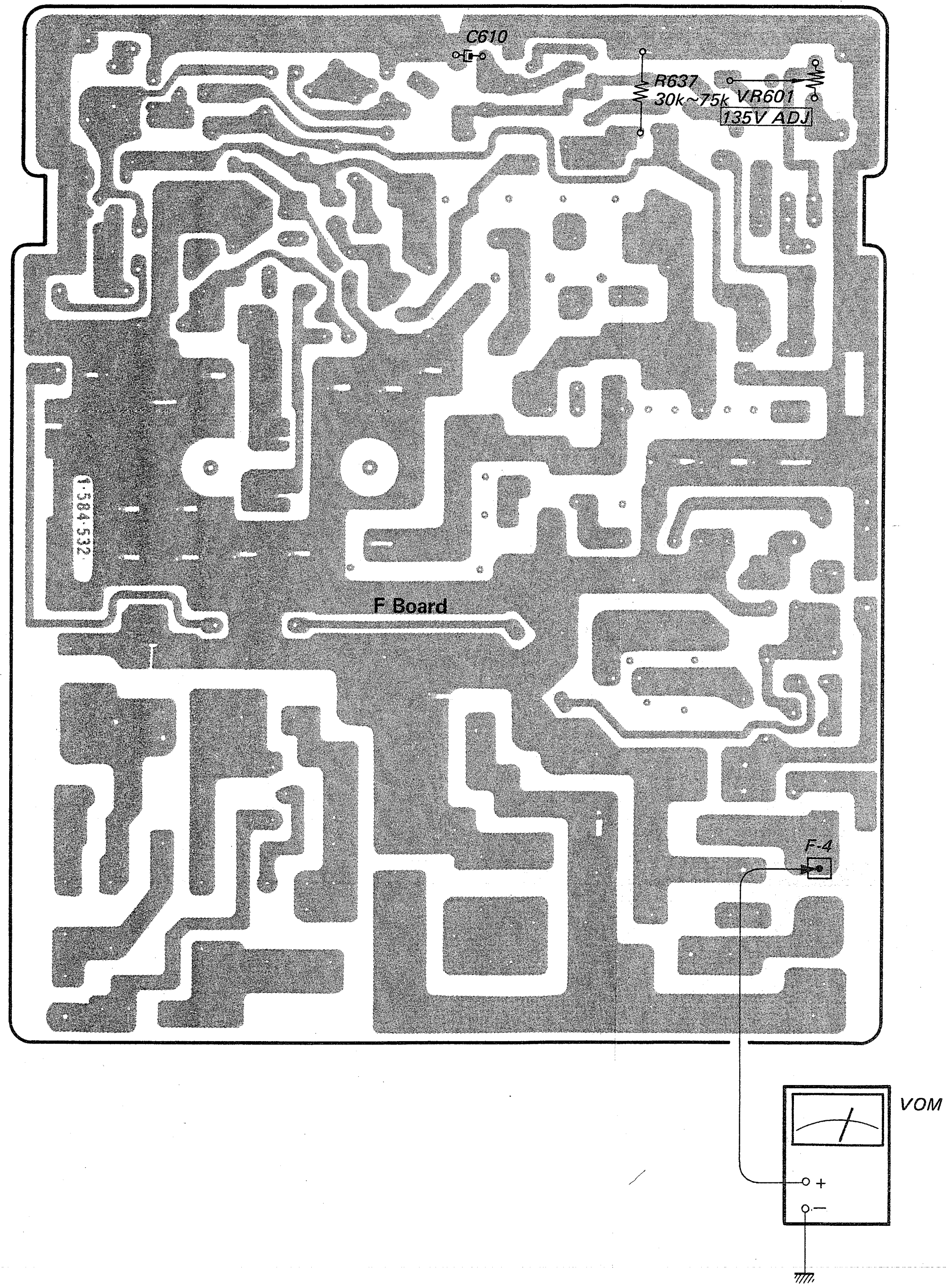
2. Adjust VR601 for 135V DC on the VOM (B).

4-8. F BOARD ADJUSTMENTS (2)

EVP (Excess Voltage Protector) ADJ

1. *Adjust VR601 for 145~147V DC reading on the VOM.*
2. *Select resistance value of R637 so that no raster is observed and no sound is heard.*
3. *Adjust VR601 for 135V DC reading on the VOM.*

**Note: When the excess voltage protecting circuit once operates, it takes about 30 seconds in returning the receiver to normal conditions. For earlier adjustment, discharge C610.*

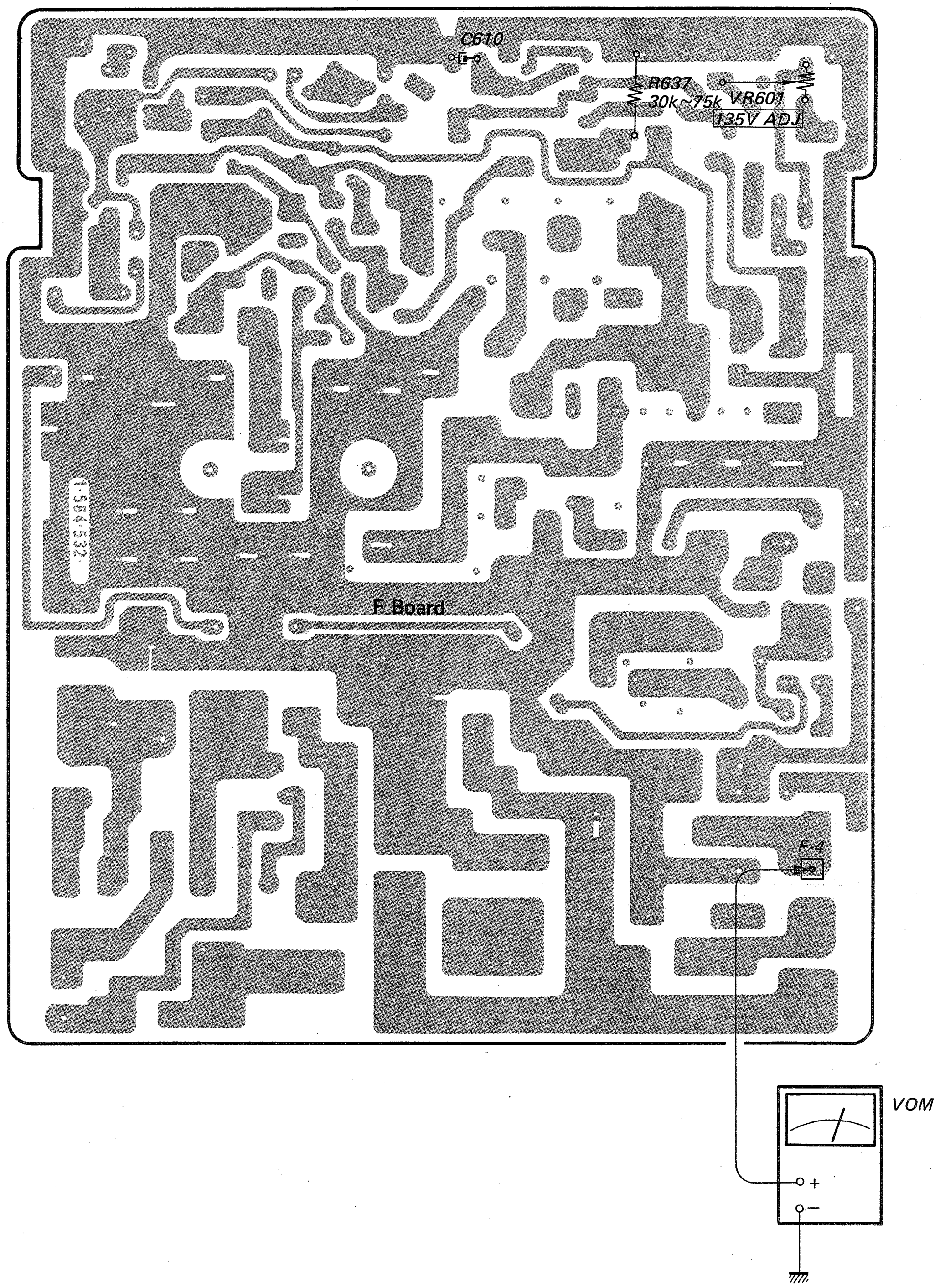

C610
R637
30k~75k
VR601
135V ADJ
1-584-532
F Board
F-4
VOM
+
−

4-8. F BOARD ADJUSTMENTS (2)

EVP (Excess Voltage Protector) ADJ

1. Adjust VR601 for 145~147V DC reading on the VOM.
2. Select resistance value of R637 so that no raster is observed and no sound is heard.
3. Adjust VR601 for 135V DC reading on the VOM.

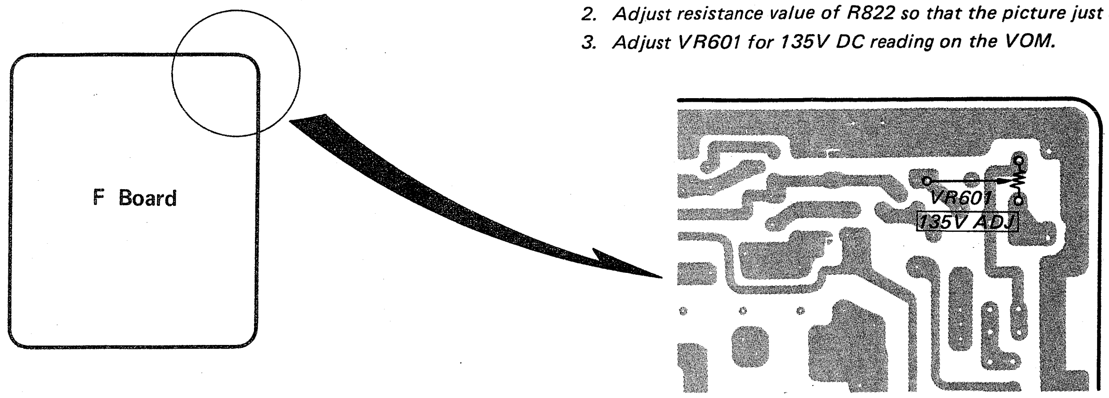
Note: When the excess voltage protecting circuit once operates, it takes about 30 seconds in returning the receiver to normal conditions. For earlier adjustment, discharge C610.

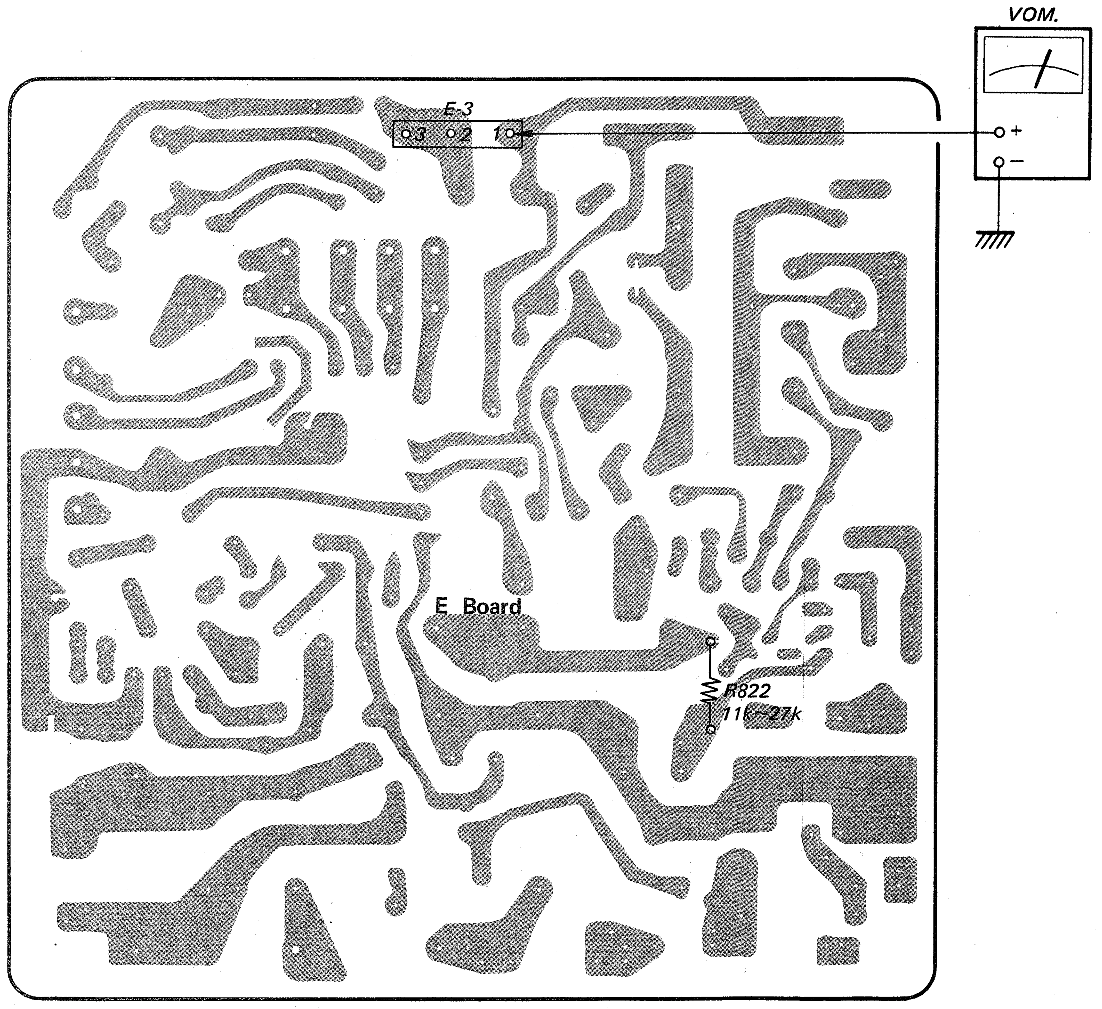

C610
R637
30k~75k
VR601
135V ADJ
1-584-532-
F Board
F-4
VOM
+
−

4-9. E BOARD ADJUSTMENTS (1)

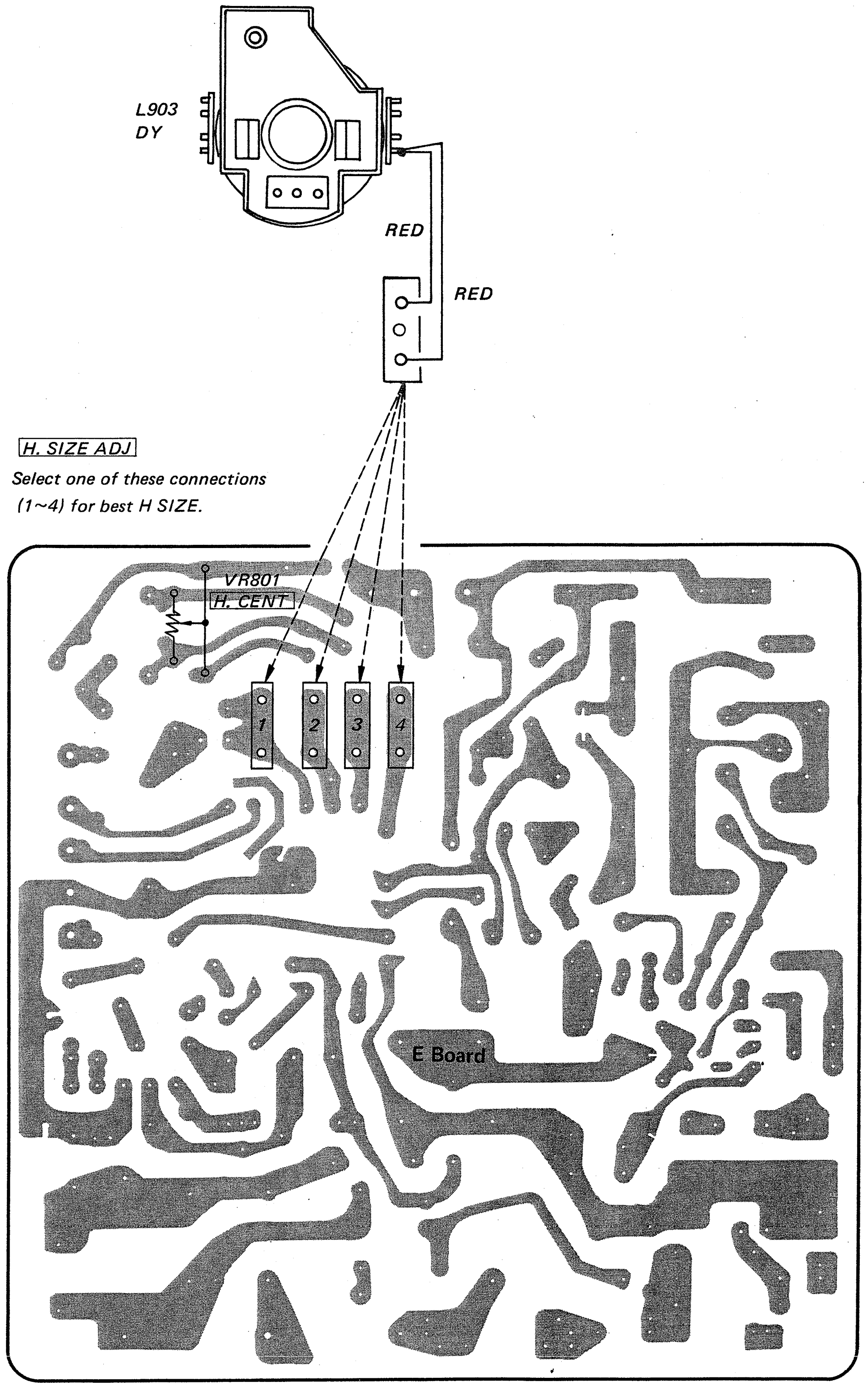
BLANKING ADJ

1. Adjust VR601 for 141~146V DC reading on the VOM.
2. Adjust resistance value of R822 so that the picture just disappears.
3. Adjust VR601 for 135V DC reading on the VOM.


F Board
VR601
135V ADJ


VOM.
E-3
3
2
1
+
−
E Board
R822
11k~27k

4-10. E BOARD ADJUSTMENTS (2)


L903
DY
RED
RED
VR801
H. CENT
1
2
3
4
E Board

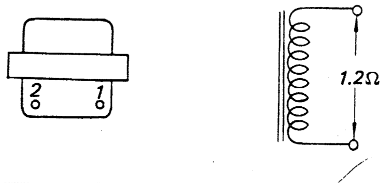
H. SIZE ADJ

Select one of these connections (1~4) for best H SIZE.

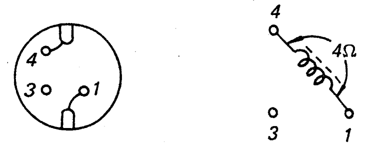
SECTION 5
DIAGRAMS

5-1. DC RESISTANCE AND WINDING DIAGRAMS OF COILS AND TRANSFORMERS

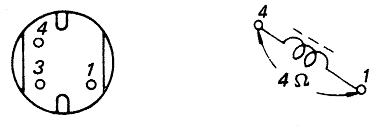
① L502
DCC-V



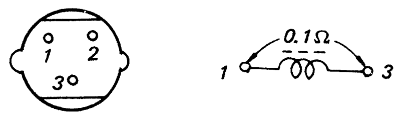
② L801
DCC



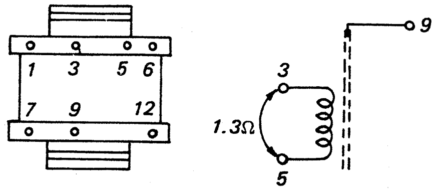
③ L802
HCC



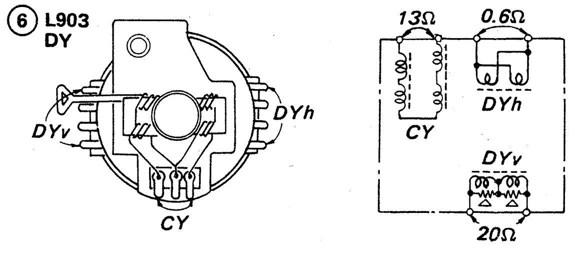
④ L803
HLC



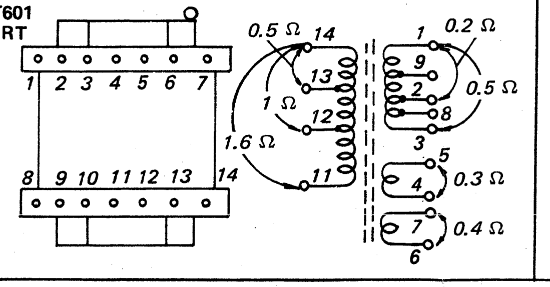
⑤ L807
SRC


1 3 5 6
7 9 12
9
3
1.3Ω
5

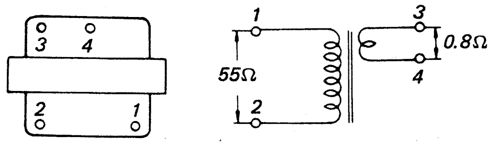
⑥ L903
DY


DYv
DYh
CY
13Ω
0.6Ω
DYh
CY
DYv
20Ω

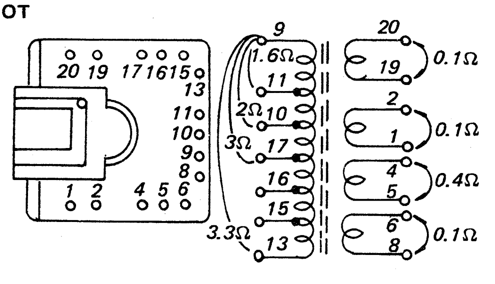
⑦ T601
SRT


1 2 3 4 5 6 7
8 9 10 11 12 13 14
0.5Ω
14
13
1Ω
12
1.6Ω
11
1
0.2Ω
9
2
0.5Ω
8
3
5
4
0.3Ω
7
0.4Ω
6

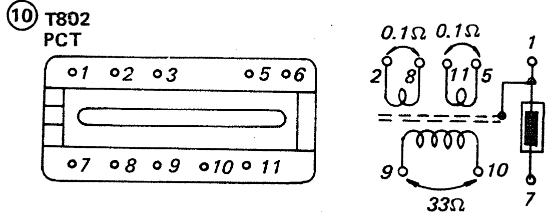
⑧ T602
RDT


3 4
2 1
1
55Ω
2
3
0.8Ω
4

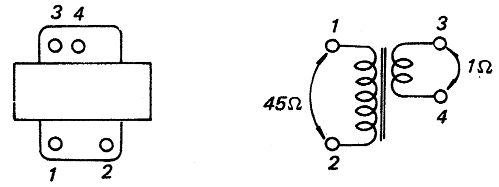
⑨ T801
HOT


20 19 17 16 15
13
11
10
9
8
1 2 4 5 6
9
1.6Ω
11
2Ω
10
3Ω
17
16
15
3.3Ω
13
20
19
0.1Ω
2
1
0.1Ω
4
5
0.4Ω
6
8
0.1Ω

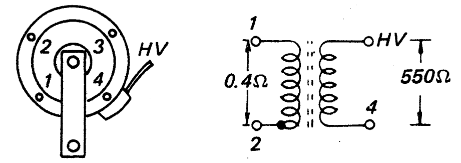
⑩ T802
PCT


1 2 3 5 6
7 8 9 10 11
0.1Ω 0.1Ω
1
2
8
11
5
9
10
7
33Ω

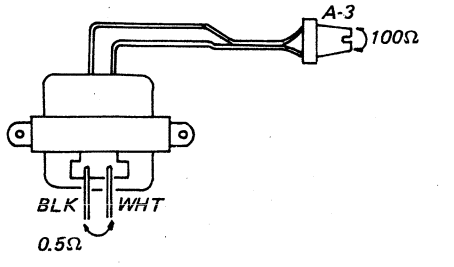
⑪ T803
HDT


3 4
1 2
1
45Ω
2
3
1Ω
4

⑫ T851
FBT


2
3
1
4
HV
1
0.4Ω
2
HV
550Ω
4

⑬ T901
SOT

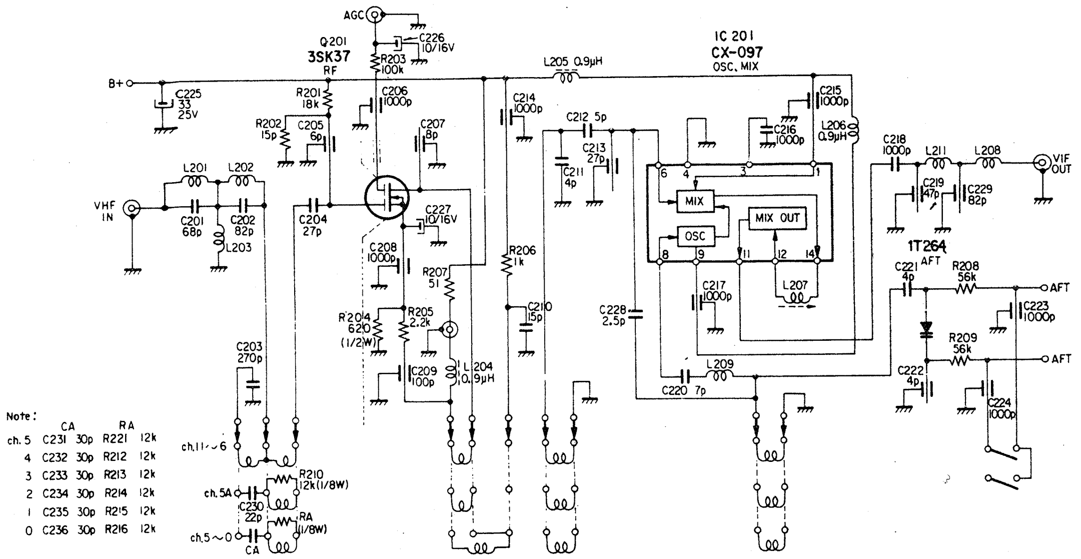

A-3
100Ω
BLK
WHT
0.5Ω

Note: DC resistance measurements shown with coil disconnected from circuit.

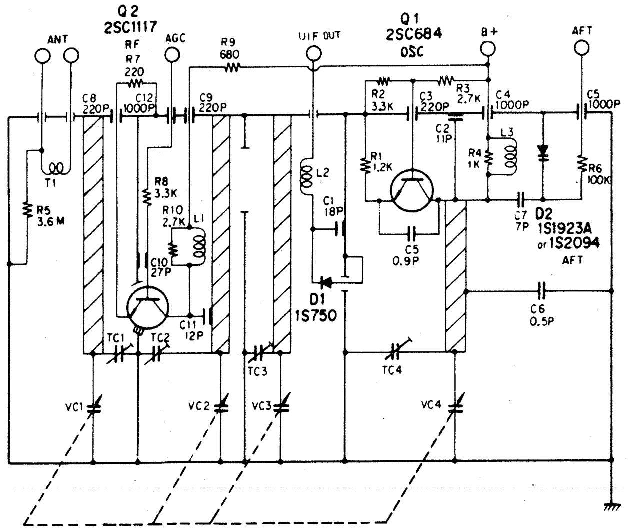
5-2. SCHEMATIC DIAGRAM

Note: 1. Tuner reference numbers are not included in the Electrical Parts List (Pages 48~56).
2. All resistors are ¼ W unless otherwise noted.

– VHF tuner –
BT-754AS


Q201
3SK37
RF
IC 201
CX-097
OSC, MIX
AGC
B+
VHF IN
VIF OUT
AFT
1T264
MIX
OSC
MIX OUT
Note:
ch.5 C231 30p R221 12k
4 C232 30p R212 12k
3 C233 30p R213 12k
2 C234 30p R214 12k
1 C235 30p R215 12k
0 C236 30p R216 12k

– UHF tuner –
BT-124

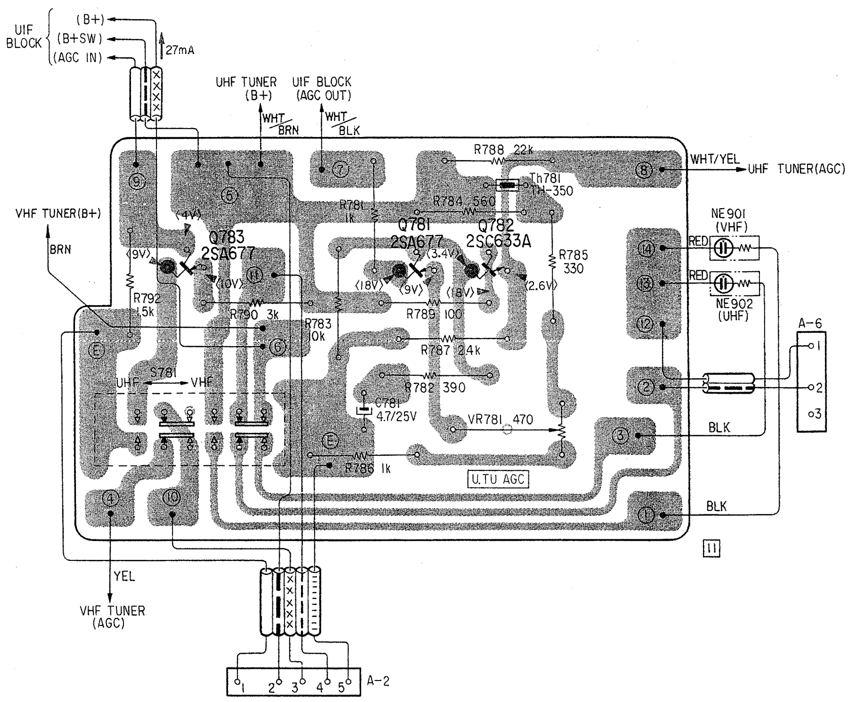

Q2
2SC1117
RF
Q1
2SC684
OSC
ANT
AGC
UIF OUT
B+
AFT
D1
1S750
D2
1S1923A
or 1S2094
VC1
VC2
VC3
VC4
TC1
TC2
TC3
TC4

UV
UIF

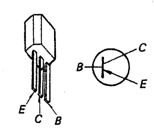
5-3. MOUNTING DIAGRAM – UV Board –

– Conductor Side –

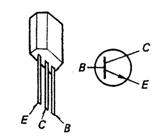
Note: ●— indicates wire connection point on the conductor side.
○— indicates parts or wire connection point on the component side.


UIF BLOCK (B+) (B+SW) (AGC IN)
27mA
UHF TUNER (B+)
UIF BLOCK (AGC OUT)
VHF TUNER(B+)
UHF TUNER(AGC)
Q783 2SA677
Q781 2SA677
Q782 2SC633A
NE901 (VHF)
NE902 (UHF)
A-6
VR781 470
U.TU AGC
YEL
VHF TUNER (AGC)
BLK
A-2

2SA677



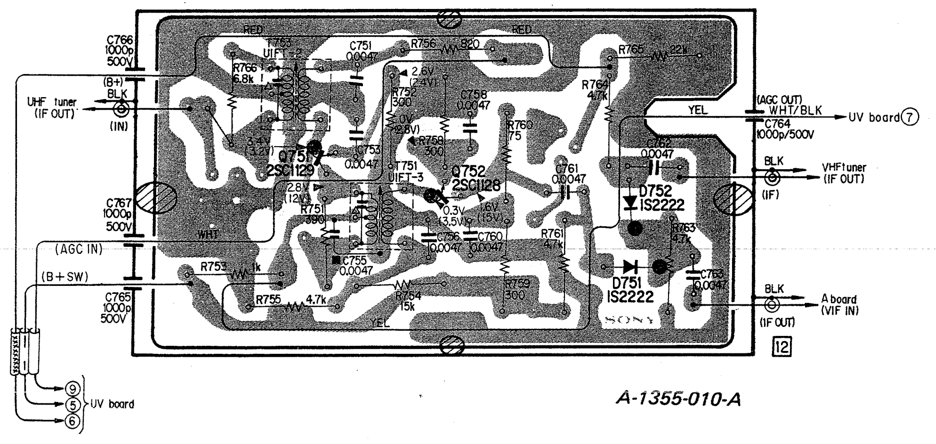
2SC633A



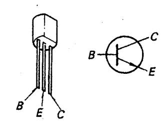
5-4. MOUNTING DIAGRAM – UIF Board –

– Conductor Side –

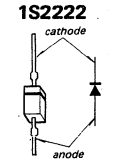
Note: ●— indicates parts or wire connection point on the conductor side.
○— indicates parts or wire connection point through the component side.


UHF tuner (IF OUT)
(AGC IN)
(B+SW)
UV board
(AGC OUT)
UV board⑦
VHF tuner (IF OUT)
A board (VIF IN)
Q751 2SC1129
Q752 2SC1128
D751 1S2222
D752 1S2222
SONY
A-1355-010-A

2SC1128
2SC1129

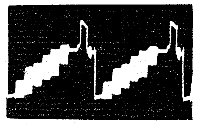


1S2222


cathode
anode

5-5. MOUNTING DIAGRAM – A Board –

– Conductor Side –



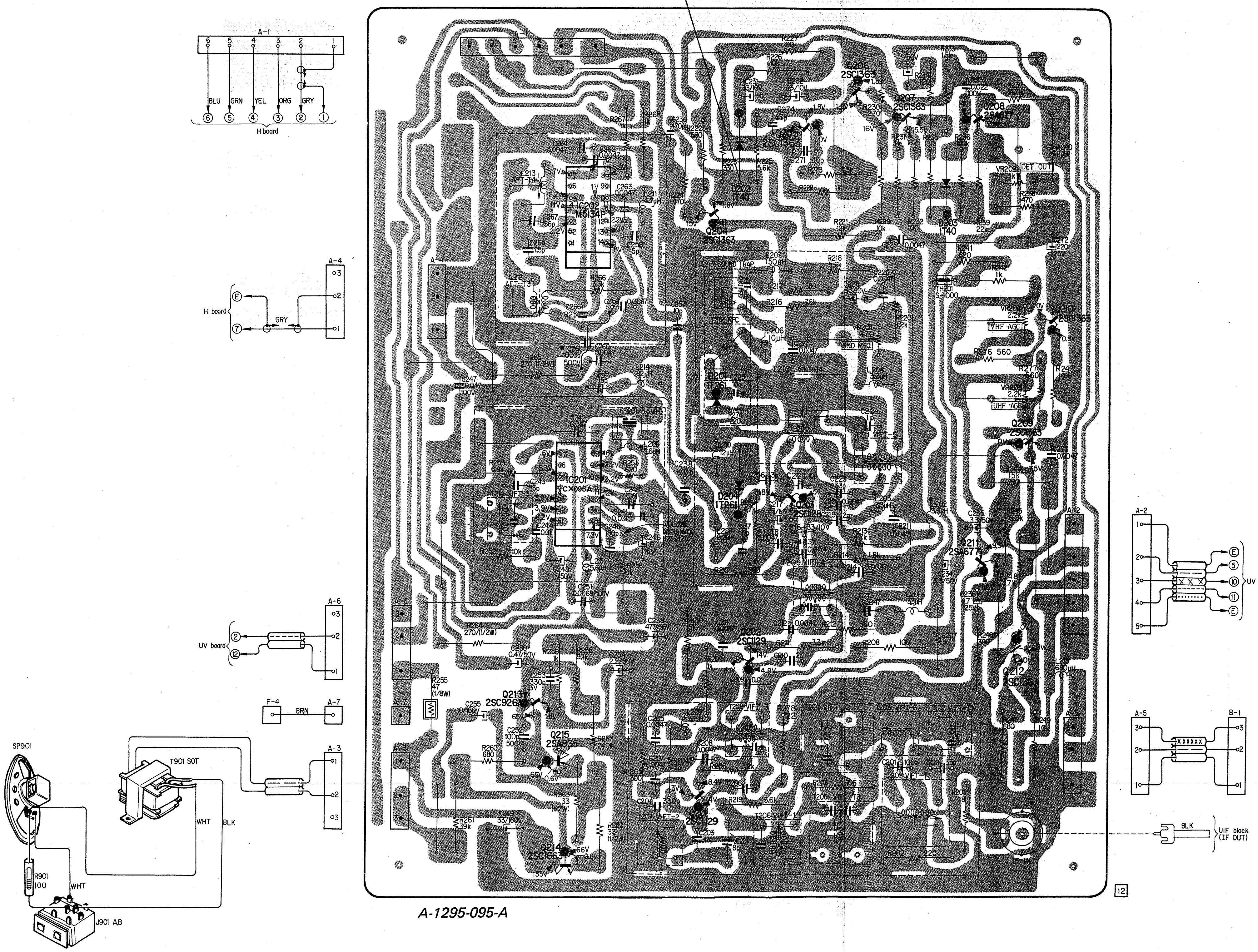
① 2.6V (H)

(0V to PEAK level)

Note: ●—indicates parts or wire connection point on the conductor side.

○—indicates parts or wire connection point through the component side.

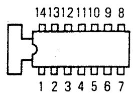
▭—indicates a nonflammable resistor.


A-1
BLU
GRN
YEL
ORG
GRY
H board
A-4
GRY
A-6
UV board
F-4
BRN
A-7
A-3
SP901
T901 SOT
WHT
BLK
R901 100
J901 AB
IC202 M5134P
IC201 CX095A
Q206 2SC1363
Q207 2SC1363
Q208 2SA677
Q205 2SC1363
Q204 2SC1363
Q210 2SC1363
Q209 2SC1363
Q203 2SC1128
Q211 2SA677
Q202 2SC1129
Q212 2SC1363
Q213 2SC926A
Q215 2SA835
Q201 2SC1129
Q214 2SC1663
D202 1T40
D203 1T40
D201 1T261
D204 1T261
VR202 DET OUT
VR204 VHF AGC
VR201 SND REJ
VR203 UHF AGC
A-2
UV board
A-5
B-1
BLK
UIF block (IF OUT)
12

A-1295-095-A

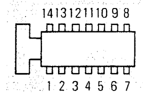
Q, IC	D	ADJ
Q206		
Q207 Q208 Q205		
	D202	
	D203	VR202
IC202 Q204		
Q210		VR204 VR201
	D201	VR203
Q209		
	D204	
Q203		
Q211		
Q202 Q212 Q213		
Q215		
Q201		
Q214		

M5134P


14 13 12 11 10 9 8
1 2 3 4 5 6 7

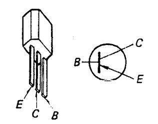
(Top view)

CX095A

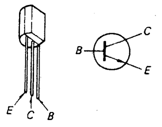

14 13 12 11 10 9 8
1 2 3 4 5 6 7

(Top view)

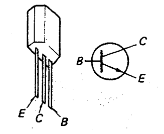
2SA677



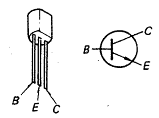
2SA835



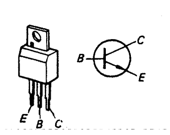
2SC926A



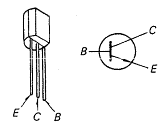
2SC1128
2SC1129



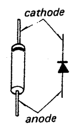
2SC1663



2SC1363



1T261
1T40

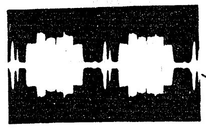

cathode
anode

KV-1830AS KV-1830AS

B **B**

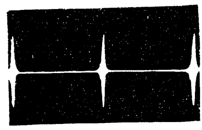
5-6. MOUNTING DIAGRAM – B Board –

– Conductor Side –

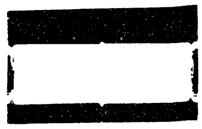


② *0.7 Vp-p (H)*

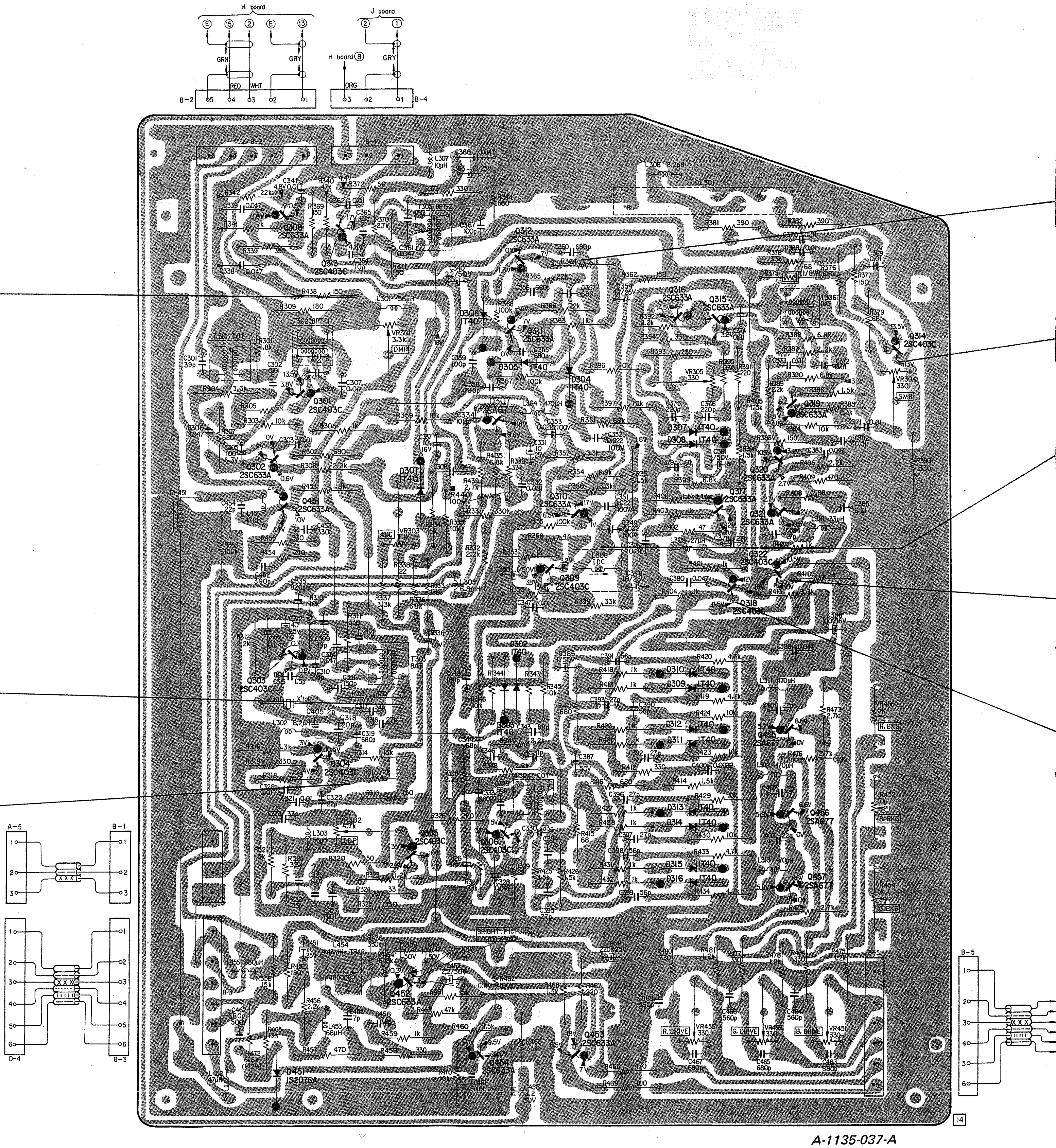
ADJ	D	Q
		Q308 Q313
		Q312
VR301	D306	Q316 Q315 Q311
		Q314
VR304 VR305	D305 D304	
		Q301 Q319
		Q307
	D307 D308	
		Q302 Q320
	D301	
		Q451 Q317 Q310 Q321
VR303		
		Q309 Q322 Q318
		Q303
	D310 D303 D302 D309	
VR456	D312 D311	Q455
		Q304
VR452	D313 D314	Q456
VR302		Q306
		Q305
	D315 D316	
		Q457
VR454		
		Q452
VR455 VR453 VR451		Q454 Q453
	D451	



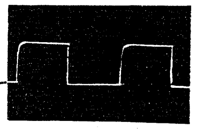
③ *8 Vp-p (H)*



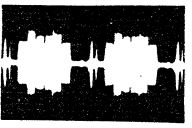
④ *3 Vp-p (V)*


H board
J board
E
⑮
⑫
E
⑬
②
①
GRN
GRY
RED
WHT
H board ⑧
ORG
B-2
B-4
A-5
B-1
D-4
B-3
B-5
C board
Q308 2SC633A
Q313 2SC403C
Q312 2SC633A
Q311 2SC633A
Q316 2SC633A
Q315 2SC633A
Q314 2SC403C
Q301 2SC403C
Q307 2SA677
Q319 2SC633A
Q302 2SC633A
Q320 2SC633A
Q451 2SC633A
Q310 2SC633A
Q317 2SC633A
Q321 2SC633A
Q309 2SC403C
Q322 2SC403C
Q318 2SC403C
Q303 2SC403C
Q304 2SC403C
Q305 2SC403C
Q306 2SC403C
Q455 2SA677
Q456 2SA677
Q457 2SA677
Q452 2SC633A
Q453 2SC633A
Q454 2SC633A
D451 1S2076A
VR301
VR304
VR305
VR303
VR302
VR456
VR452
VR454
VR455
VR453
VR451
BRIGHT PICTURE
R.DRIVE
G.DRIVE
B.DRIVE
14

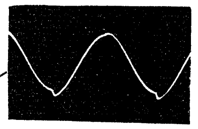
A-1135-037-A



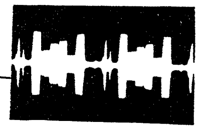
⑥ *14 Vp-p (H)*



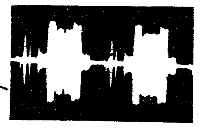
⑦ *1.5 Vp-p (H)*



⑤ *18 Vp-p (H)*

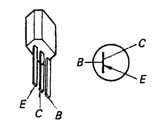


⑧ *4.8 Vp-p (H)*

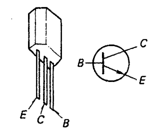


⑨ *4.8 Vp-p (H)*

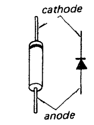
2SA677



2SC403C
2SC633A



1S2076A
1T40

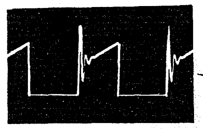

cathode
anode

Note: ●—indicates parts or wire connection point on the conductor side.
○—indicates parts or wire connection point through the component side.
▭ indicates a nonflammable resistor.

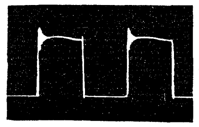
5-7. MOUNTING DIAGRAM – F Board –
– Conductor Side –

CAUTION
Do not touch the base of Q602 with the probe of VOM.

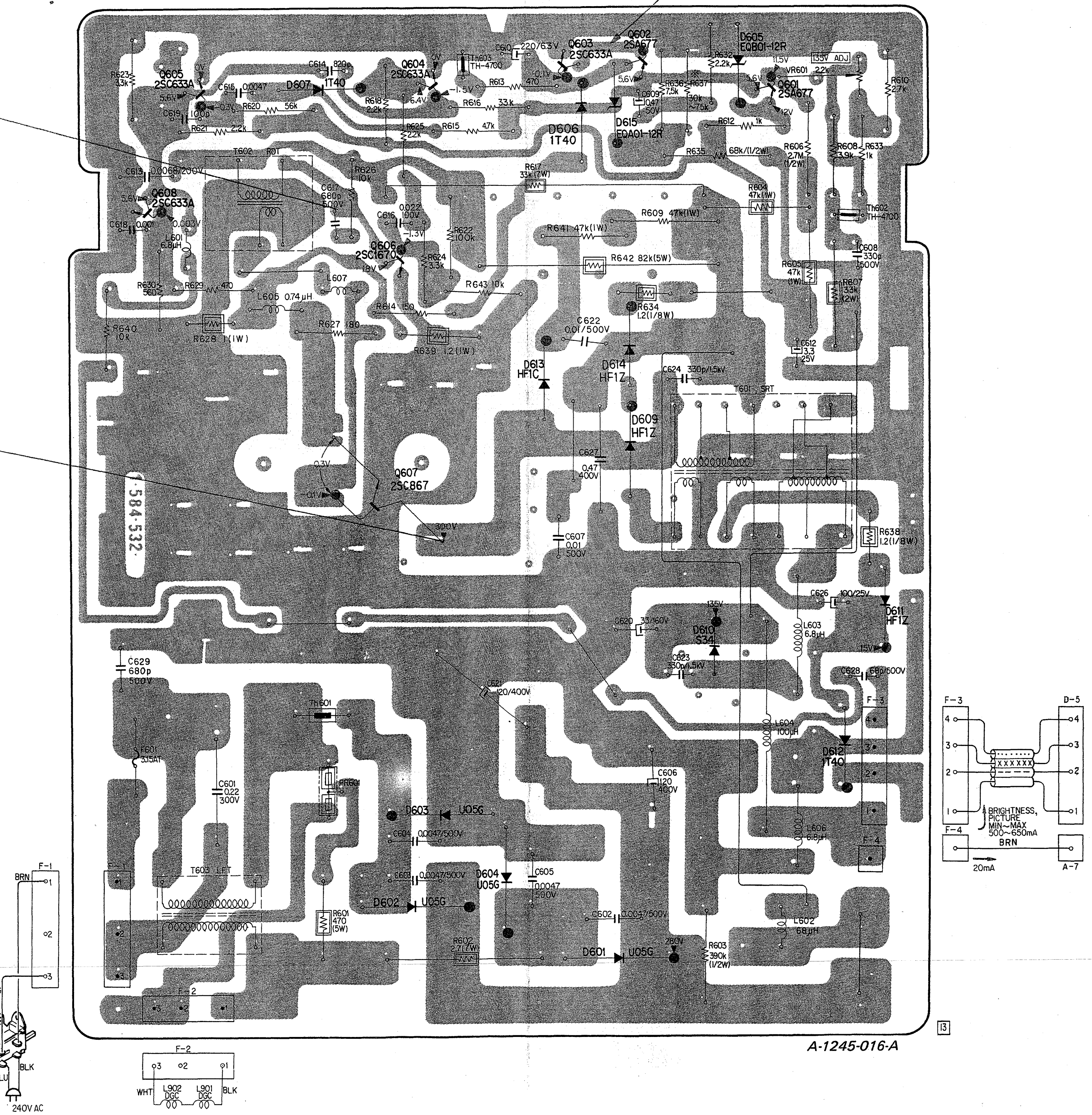
Q	Q608 Q605 Q607 Q606 Q604 Q603 Q602 Q601
D	D607 D602 D603 D604 D613 D606 D615 D614 D601 D609 D610 D605 D612 D611
ADJ	VR601



㉑ 650 Vp-p (H)

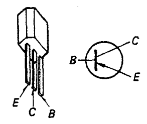


⑳ 80 Vp-p (H)

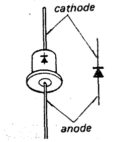

Q605 2SC633A
Q604 2SC633A
Q603 2SC633A
Q602 2SA677
Q601 2SA677
Q608 2SC633A
Q606 2SC1670
Q607 2SC867
D605 EQB01-12R
D615 EQA01-12R
D606 1T40
D607 1T40
D613 HF1C
D614 HF1Z
D609 HF1Z
D611 HF1Z
D610 S34
D612 1T40
D603 U05G
D604 U05G
D602 U05G
D601 U05G
C610 220/63V
Th603 TH-4700
C614 820p
C615 0.0047
C616 0.022 100V
C617 680p 500V
C622 0.01/500V
C624 330p/1.5kV
C627 0.47 400V
C607 0.01 500V
C608 330p 500V
C612 3.3 25V
C626 100/25V
C620 33/160V
C623 330p/1.5kV
C628 680p/500V
C629 680p 500V
C621 120/400V
C601 0.22 300V
C604 0.0047/500V
C603 0.0047/500V
C605 0.0047 500V
C602 0.0047/500V
C606 120 400V
R623 3.3k
R620 56k
R621 2.2k
R618 2.2k
R625 2.2k
R615
R613
R616 33k
R617 33k (7W)
R632 2.2k
R636 7.5k
R637
R612 1k
R635 68k (1/2W)
R606 2.7M (1/2W)
R608 3.9k
R633 1k
R610 2.7k
R604 47k (1W)
R609 47k (1W)
R641 47k (1W)
R642 82k (5W)
R634 1.2 (1/8W)
R643 10k
R605 47k (1W)
R607 3.3k (2W)
R622 100k
R624 3.3k
R626 10k
R614 150
R627 180
R639 1.2 (1W)
R628 1 (1W)
R640 10k
R629 470
R630 560
R638 1.2 (1/8W)
R601 470 (5W)
R602 2.7 (7W)
R603 390k (1/2W)
VR601 2.2k
33V ADJ
Th602 TH-4700
Th601
T602 HOT
T601 SRT
T603 LFT
L601 6.8μH
L605 0.74μH
L607
L603 6.8μH
L604 100μH
L606 6.8μH
L602 68μH
F601 3.15A
S901 POWER
F-1
F-2
F-3
F-4
D-5
A-7
BRN
ORG
BLK
BLU
WHT
240V AC
L902 DGC
L901 DGC
BRIGHTNESS, PICTURE MIN~MAX 500~650mA
20mA
1.584.532.
13

A-1245-016-A

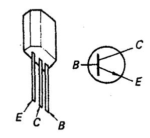
2SA677



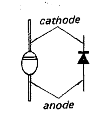
S34


cathode
anode

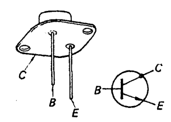
2SC633A



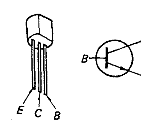
U05G


cathode
anode

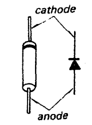
2SC867



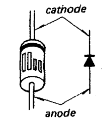
2SC1670



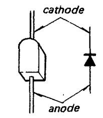
1T40


cathode
anode

EQA01-12R
EQB01-12R


cathode
anode

HF1C
HF1Z


cathode
anode

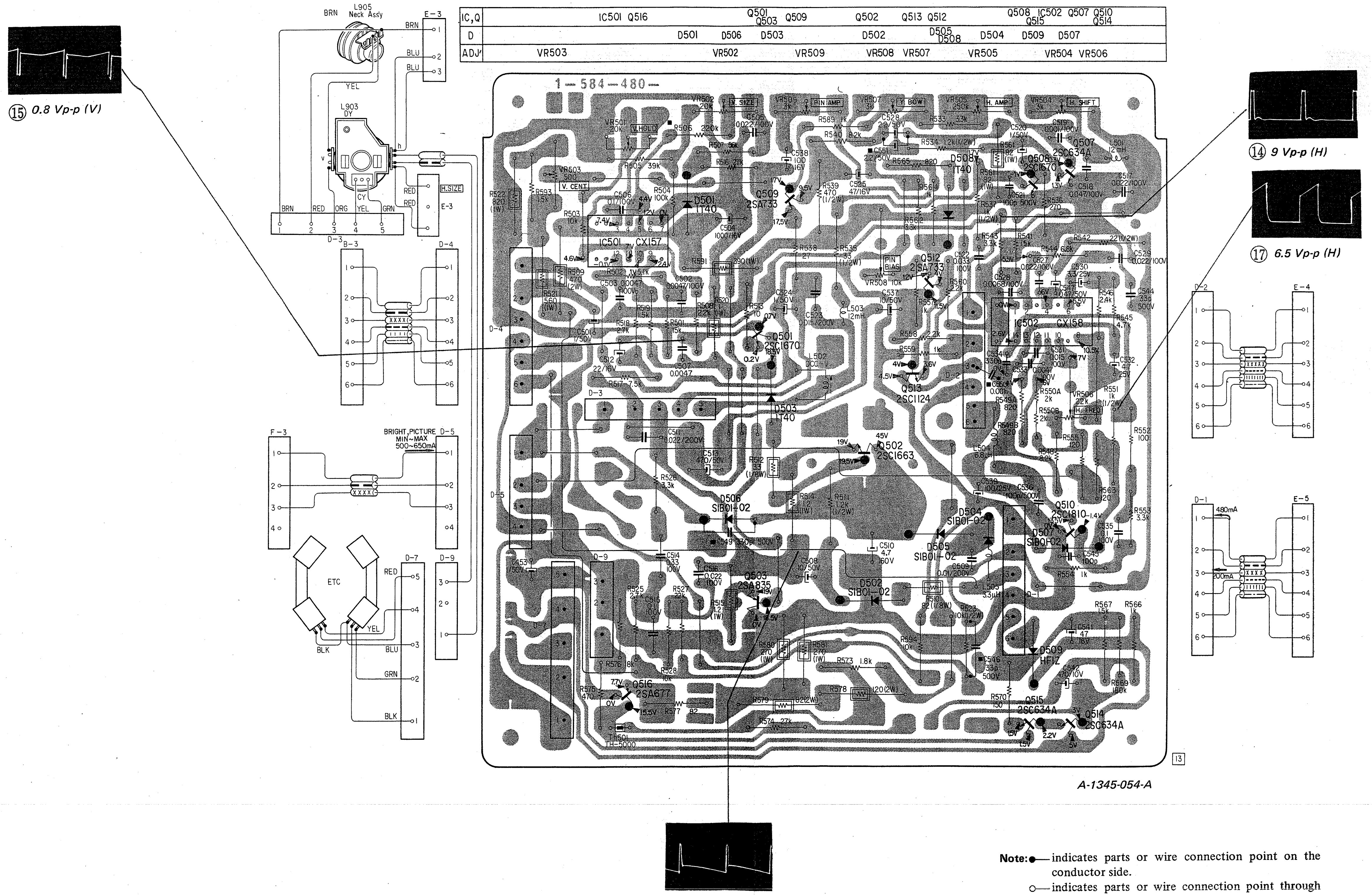
Note: ● — indicates parts or wire connection point on the conductor side.
○ — indicates parts or wire connection point through the component side.
▭ — indicates a nonflammable resistor.

KV-1830AS KV-1830AS

D **D**

5-8. MOUNTING DIAGRAM. – D Board –

– Conductor Side –


L905 Neck Assy
L903 DY
BRN
BLU
YEL
RED
ORG
GRN
BLK
CY
E-3
E-4
E-5
D-1
D-2
D-3
D-4
D-5
D-7
D-9
F-3
H.SIZE
ETC
BRIGHT PICTURE MIN~MAX 500~650mA
480mA
200mA
1-584-480
V. SIZE
PIN AMP
Y. BOW
H. AMP
H. SHIFT
V. HOLD
V. CENT
PIN BIAS
H. FREQ
IC501 CX157
IC502 CX158
Q501 2SC1670
Q502 2SC1663
Q503 2SA835
Q506 2SC1670
Q507 2SC634A
Q509 2SA733
Q510 2SC1810
Q512 2SA733
Q513 2SC1124
Q514 2SC634A
Q515 2SC634A
Q516 2SA677
D501 1T40
D503 1T40
D504 S1B01-02
D505 S1B01-02
D506 S1B01-02
D507 S1B01-02
D502 S1B01-02
D509 HF1Z
L501 12mH
L502
L503 12mH
L505 33μH
TH501 TH-5000
13
A-1345-054-A

IC,Q	IC501 Q516	Q501 Q503 Q509	Q502	Q513 Q512	Q508 IC502 Q507 Q510 Q515 Q514
D	D501 D506 D503	D502	D505 D508	D504 D509 D507	
ADJ'	VR503	VR502 VR509	VR508 VR507	VR505	VR504 VR506

⑮ *0.8 Vp-p (V)*

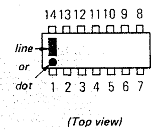
⑭ *9 Vp-p (H)*

⑰ *6.5 Vp-p (H)*

⑯ *100 Vp-p (V)*

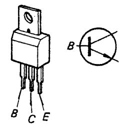
Note: ●— indicates parts or wire connection point on the conductor side.
○— indicates parts or wire connection point through the component side.
▭ indicates a nonflammable resistor.

CX157

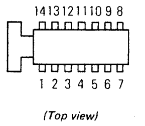

14 13 12 11 10 9 8
line
or
dot
1 2 3 4 5 6 7

(Top view)

2SC1810

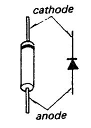


CX158

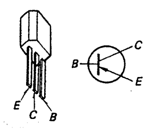

14 13 12 11 10 9 8
1 2 3 4 5 6 7

(Top view)

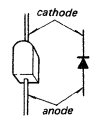
1T40


cathode
anode

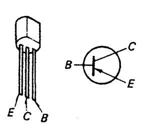
2SA677



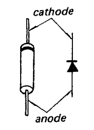
HF1Z


cathode
anode

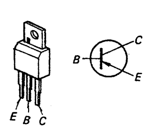
2SA733



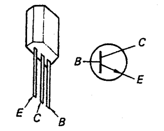
S1B01-02


cathode
anode

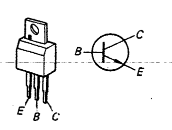
2SA835



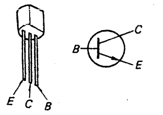
2SC634A



2SC1124
2SC1663



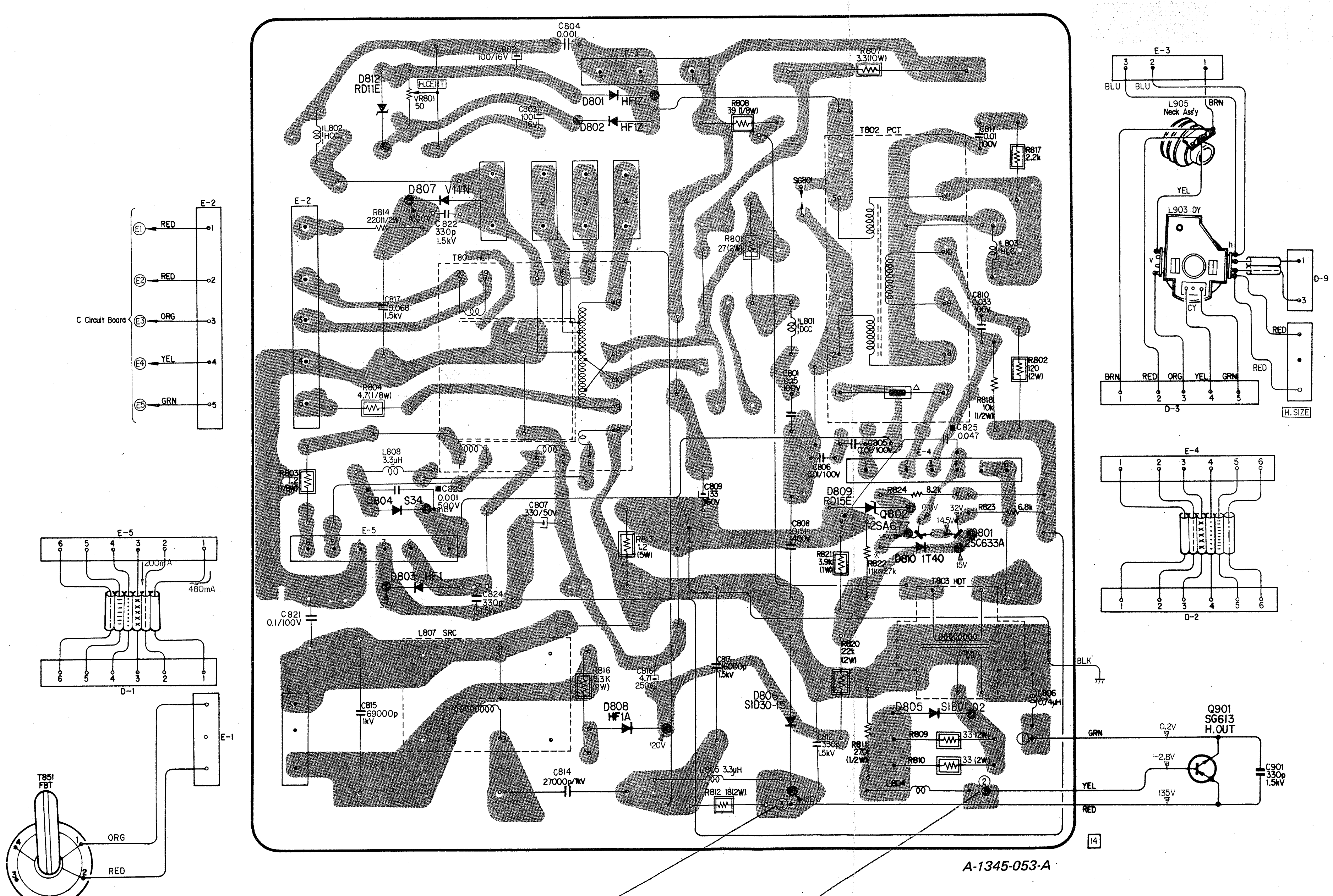
2SC1670



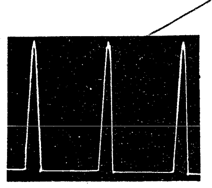
5-9. MOUNTING DIAGRAM – E Board –

– Conductor Side –

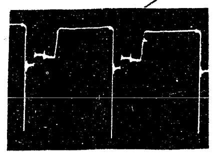
Q	Q802 Q801 Q902
D	D812 D804 D803 D807 D801 D802 D808 D806 D809 D810 D805
ADJ	VR801 L807


C804 0.001
C802 100/16V
E-3
R807 3.3(10W)
D812 RD11E
H.CENT
VR801 50
D801 HF1Z
D802 HF1Z
R806 39 (1/8W)
C803 100/16V
L802 HCC
T802 PCT
C811 0.01 100V
R817 2.2k
SG801
D807 V11N
R814 220(1/2W)
C822 330p 1.5kV
R801 27(2W)
L803 HLC
T801 HO
C817 0.068 1.5kV
L801 DCC
C810 0.033 100V
C801 0.5 160V
R802 120 (2W)
R804 4.7(1/8W)
R818 10k (1/2W)
C825 0.047
C805 0.01/100V
C806 0.01/100V
L808 3.3μH
R803
C823 0.001 500V
D804 S34
C807 330/50V
C809 33 160V
D809 RD15E
R824 8.2k
R823 6.8k
Q802 2SA677
Q801 2SC633A
C808 0.51 400V
R813 1.2 (5W)
R821 3.9k (1W)
R822 11k 27k
D810 1T40
T803 HDT
D803 HF1
C824 330p 1.5kV
C821 0.1/100V
L807 SRC
C813 6800p 1.5kV
R816 3.3K (2W)
C816 4.7 250V
R820 22k (2W)
L806 0.74μH
C815 69000p 1kV
D808 HF1A
D806 SID30-15
D805 SID01-02
R809 33 (2W)
R810 33 (2W)
C812 330p 1.5kV
R811 270 (1/2W)
C814 27000p/1kV
L805 3.3μH
R812 18(2W)
L804
120V
130V
15V
14.5V
32V
0.8V
E-1
E-2
E-4
E-5
C Circuit Board
E1 RED
E2 RED
E3 ORG
E4 YEL
E5 GRN
200mA
480mA
D-1
T851 FBT
ORG
RED
BLU
BRN
L905 Neck Ass'y
YEL
L903 DY
CY
D-9
RED
ORG
GRN
D-3
H.SIZE
D-2
BLK
GRN
YEL
Q901 SG613 H.OUT
0.2V
-2.8V
135V
C901 330p 1.5kV
14

A-1345-053-A



⑱1100 Vp-p (H)



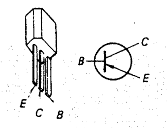
⑲40 Vp-p (H)

Note: ●— indicates parts or wire connection point on the conductor side.

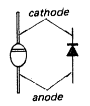
○— indicates parts or wire connection point through the component side.

▭ indicates a nonflammable resistor.

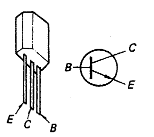
2SA677



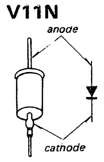
V06C


cathode
anode

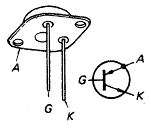
2SC633A



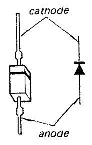
V11N


anode
cathode

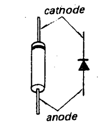
SG613



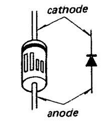
SI D30-15


cathode
anode

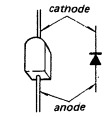
RD15E
1T40
RD11E


cathode
anode

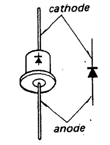
S1B01-02


cathode
anode

HF1Z
HF 1
HF1A


cathode
anode

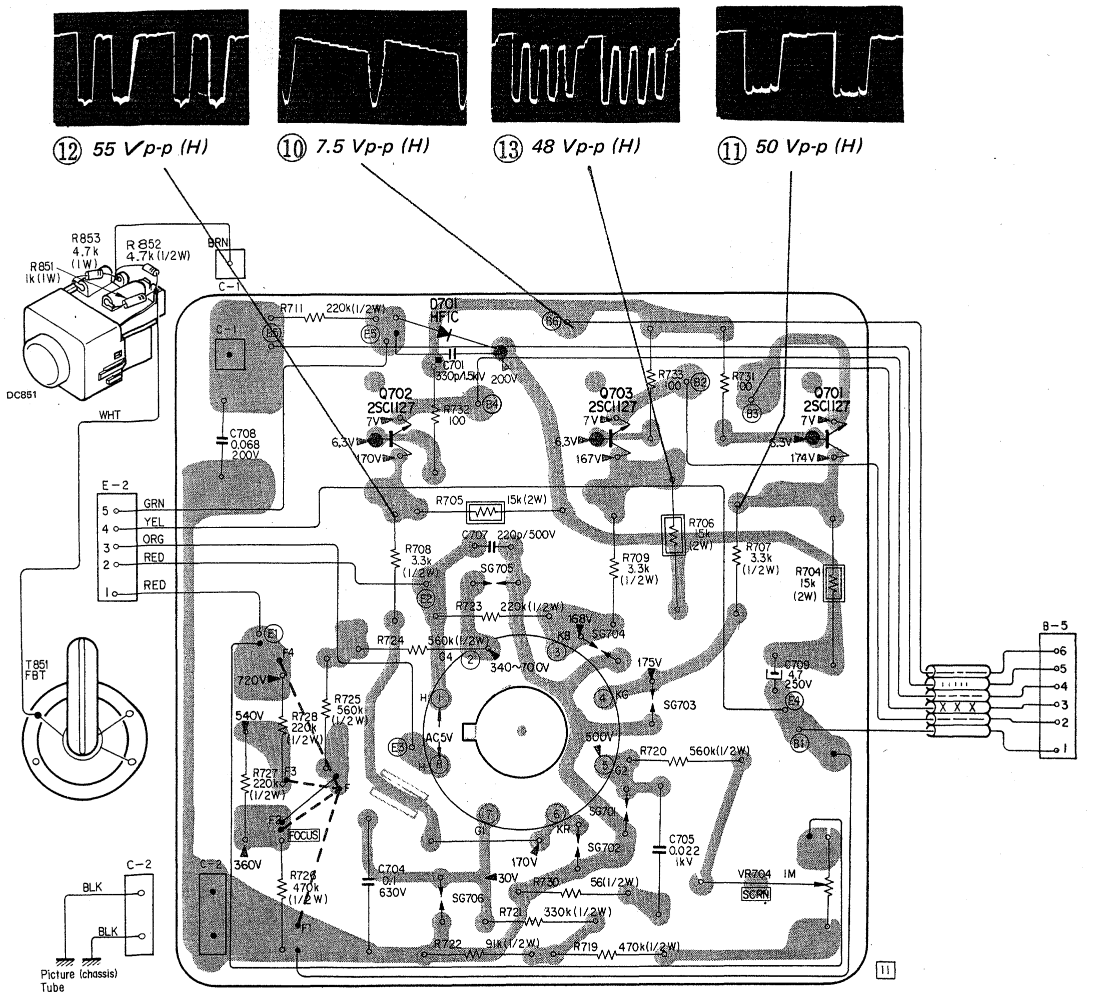
S34


cathode
anode

C

5-10. MOUNTING DIAGRAM – C Board –

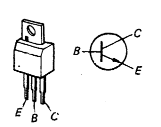
– Conductor Side –


⑫ 55 Vp-p (H)
⑩ 7.5 Vp-p (H)
⑬ 48 Vp-p (H)
⑪ 50 Vp-p (H)
R853 4.7k (1W)
R852 4.7k (1/2W)
R851 1k (1W)
DC851
BRN
C-1
WHT
E-2
GRN
YEL
ORG
RED
RED
T851 FBT
C-2
BLK
BLK
Picture Tube (chassis)
R711 220k(1/2W)
D701 HF1C
C701 330p 4.5kV
200V
Q702 2SC1127
Q703 2SC1127
Q701 2SC1127
R732 100
R733 100
R731 100
C708 0.068 200V
6.3V
170V
167V
174V
7V
R705 15k(2W)
C707 220p/500V
R708 3.3k (1/2W)
R709 3.3k (1/2W)
R706 15k (2W)
R707 3.3k (1/2W)
R704 15k (2W)
R723 220k(1/2W)
R724 560k(1/2W)
SG705
SG704
SG703
168V
340~700V
175V
C709 4.7 250V
720V
540V
R725 560k (1/2W)
R728 220k (1/2W)
R727 220k (1/2W)
AC5V
500V
R720 560k(1/2W)
SG701
SG702
C705 0.022 1kV
FOCUS
360V
R726 470k (1/2W)
C704 0.1 630V
SG706
170V
30V
R730 56(1/2W)
VR704 1M
SCRN
R721 330k(1/2W)
R722 91k(1/2W)
R719 470k(1/2W)
B-5
11

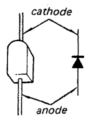
Q		Q702		Q703		Q701
D			D701			
ADJ	FOCUS				VR704	

A-1330-055-A

2SC1127



HF1C


cathode
anode

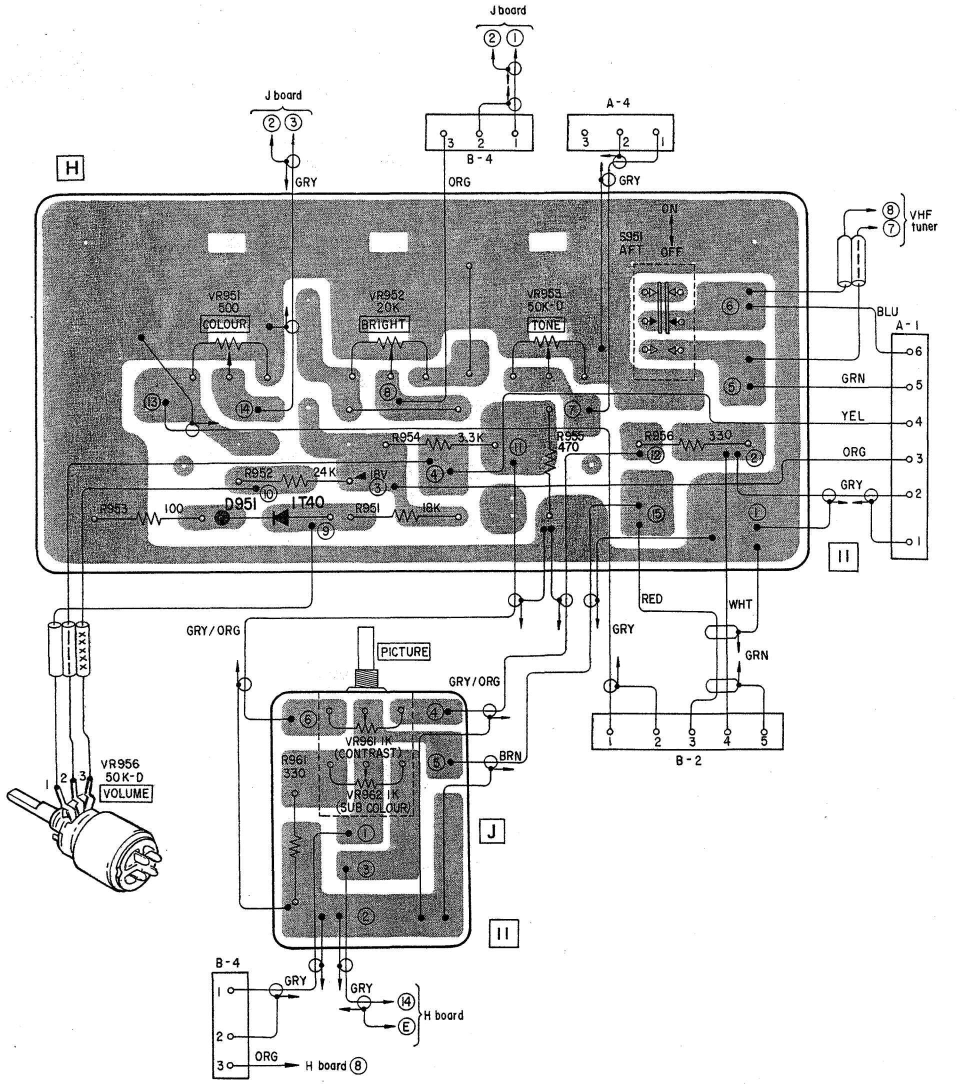
Note: ●— indicates parts or wire connection point on the conductor side.
○— indicates parts or wire connection point through the component side.
[W] indicates a nonflammable resistor.

J

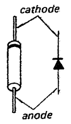
H

5-11. MOUNTING DIAGRAM – J. H Board –

– Conductor Side –

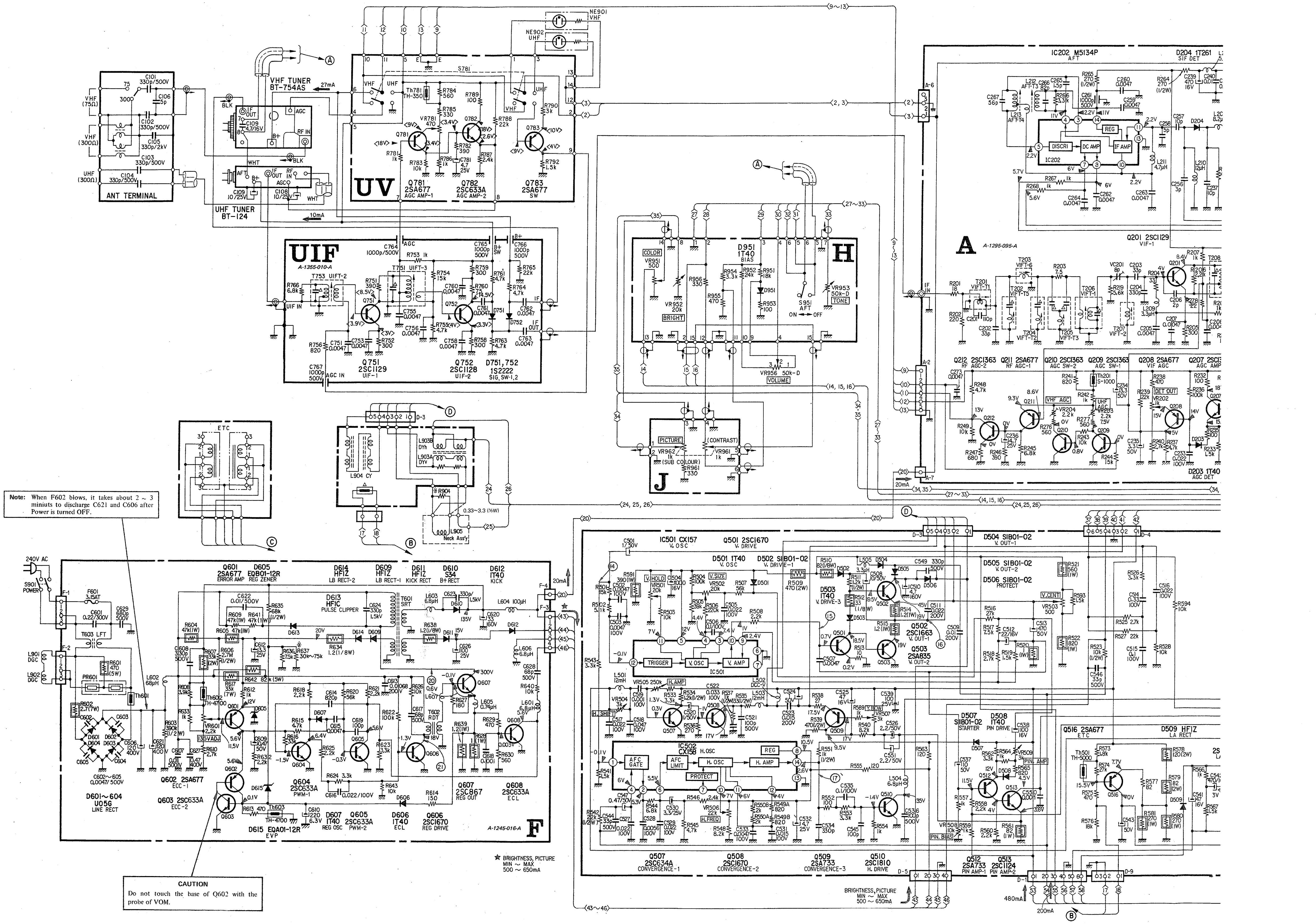

J board
J board
A-4
B-4
GRY
ORG
GRY
H
S951 AFT ON OFF
VHF tuner
VR951 500 COLOUR
VR952 20K BRIGHT
VR953 50K-D TONE
BLU
A-1
GRN
YEL
ORG
GRY
R954 3.3K
R955 470
R956 330
R952 24K
18V
R953 100
D951 1T40
R951 18K
11
RED
WHT
GRY/ORG
PICTURE
GRY/ORG
GRY
GRN
B-2
VR956 50K-D VOLUME
R961 330
VR961 1K CONTRAST
VR962 1K SUB COLOUR
BRN
J
11
B-4
GRY
GRY
H board
ORG
H board ⑧

1T40


cathode
anode

Note: ●— indicates parts or wire connection point on the conductor side.
○— indicates parts or wire connection point through the component side.

5-12. SCHEMATIC DIAGRAM


ANT TERMINAL
VHF (75Ω)
VHF (300Ω)
UHF (300Ω)
VHF TUNER BT-754AS
UHF TUNER BT-124
UV
Q781 2SA677 AGC AMP-1
Q782 2SC633A AGC AMP-2
Q783 2SA677 SW
NE901 VHF
NE902 UHF
UIF
A-1355-010-A
Q751 2SC1129 UIF-1
Q752 2SC1128 UIF-2
D751, 752 1S2222 SIG. SW-1, 2
H
D951 1T40 BIAS
VR951 COLOR
VR952 BRIGHT
VR953 TONE
S951 AFT ON ⟷ OFF
VR956 50k-D VOLUME
J
VR962 PICTURE
VR961 CONTRAST
(SUB COLOUR)
A
A-1295-095-A
IC202 M5134P AFT
D204 1T261 SIF DET
Q201 2SC1129 VIF-1
Q212 2SC1363 RF AGC-2
Q211 2SA677 RF AGC-1
Q210 2SC1363 AGC SW-2
Q209 2SC1363 AGC SW-1
Q208 2SA677 VIF AGC
Q207 2SC1363 AGC AMP
D203 1T40 AGC DET
ETC
L904 CY
Neck Ass'y
240V AC
S901 POWER
F601 3.15AT
T603 LFT
L901 DGC
L902 DGC
Q601 2SA677 ERROR AMP
D605 EQB01-12R REG ZENER
D613 HF1C PULSE CLIPPER
D614 HF1Z LB RECT-2
D609 HF1Z LB RECT-1
D611 HF1Z KICK RECT
D610 S34 B+ RECT
D612 1T40 KICK
T601 SRT
T602 RDT
D601~604 U05G LINE RECT
Q602 2SA677 ECC-1
Q603 2SC633A ECC-2
Q604 2SC633A PWM-1
D607 1T40 REG OSC
Q605 2SC633A PWM-2
D606 1T40 ECL
Q606 2SC1670 REG DRIVE
Q607 2SC867 REG OUT
Q608 2SC633A ECL
D615 EQA01-12R EVP
A-1245-016-A
F
★ BRIGHTNESS, PICTURE MIN ~ MAX 500 ~ 650mA
IC501 CX157 V. OSC
Q501 2SC1670 V. DRIVE
D501 1T40 V. OSC
D502 SIB01-02 V. DRIVE-1
D503 1T40 V. DRIVE-3
Q502 2SC1663 V. OUT-1
Q503 2SA835 V. OUT-2
D504 SIB01-02 V. OUT-1
D505 SIB01-02 V. OUT-2
D506 SIB01-02 PROTECT
IC502 CX158 H. OSC
D507 SIB01-02 STARTER
D508 1T40 PIN DRIVE
Q507 2SC634A CONVERGENCE-1
Q508 2SC1670 CONVERGENCE-2
Q509 2SA733 CONVERGENCE-3
Q510 2SC1810 H. DRIVE
Q512 2SA733 PIN AMP-1
Q513 2SC1124 PIN AMP-2
Q516 2SA677 ETC
D509 HF1Z LA RECT
BRIGHTNESS, PICTURE MIN ~ MAX 500 ~ 650mA
480mA
200mA

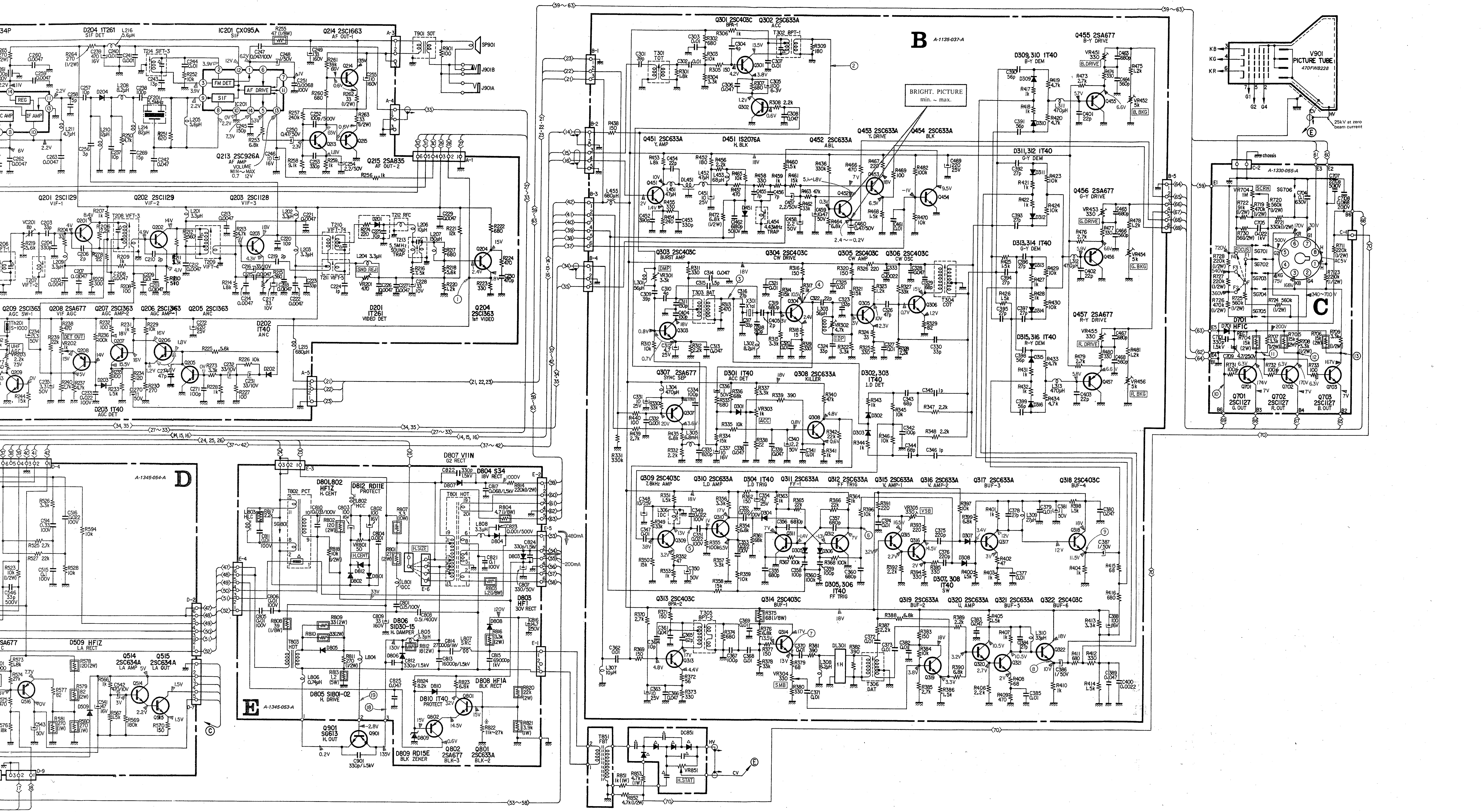
Note: When F602 blows, it takes about 2 ~ 3 miniuts to discharge C621 and C606 after Power is turned OFF.

CAUTION

Do not touch the base of Q602 with the probe of VOM.

Note:

- All capacitors are in μF unless otherwise noted. p = μμF.
- All resistors are in ohms, ¼ W unless otherwise noted.
  k = 1000 M = 1000k
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ※ indicates values to be selected.
- △ indicates internal components
- Voltages are DC with respect to ground unless otherwise noted. Readings are with a colour-bar signal applied. Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltage variations may be noted due to normal production tolerances.
- Voltages of Q514 and Q515 in the D board are taken from the points to the ground side of C541 with D-7 and D-9 removed and also C542 short-circuited.
- Voltages of Q516 in the D board are taken from the points to the chassis ground with D-7 and D-9 removed and also Th501 short-circuited.
- The circled numbers (①~㉑) refer to waveforms shown on the mounting diagrams.
- ▭ indicates a nonflammable resistor.
- ☒ indicates factory selected values.
- ECC (excess current cut)
  ECL (excess current limiter)
  EVP (excess voltage protecting)

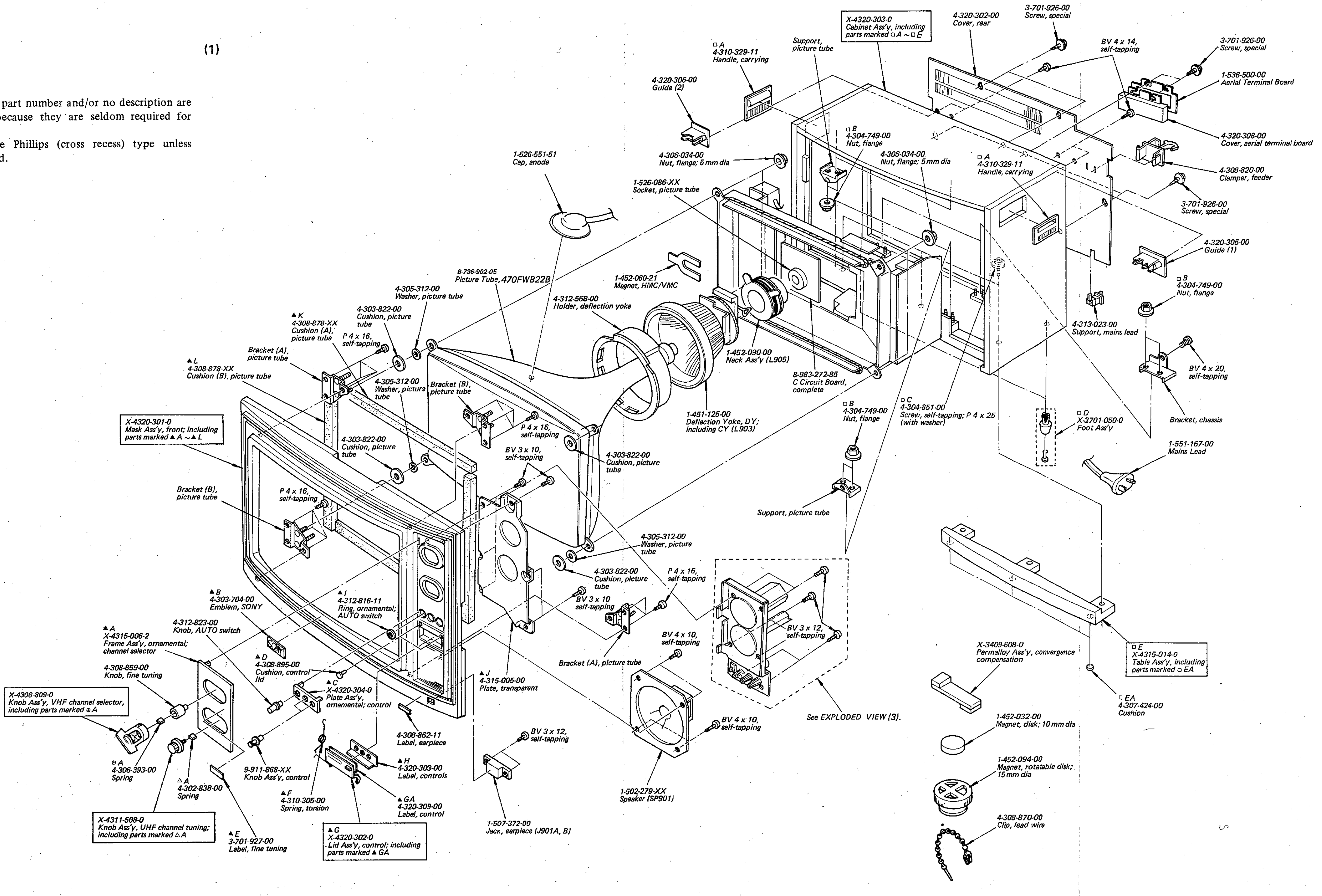

D204 1T261 SIF DET
IC201 CX095A SIF
Q214 2SC1663 AF OUT-1
T901 SOT
SP901
J901B
J901A
FM DET
AF DRIVE
SIF
IF AMP
REG
Q213 2SC926A AF AMP
VOLUME MIN ~ MAX 0.7 12V
Q215 2SA835 AF OUT-2
Q201 2SC1129 VIF-1
Q202 2SC1129 VIF-2
Q203 2SC1128 VIF-3
T208 VIFT-3
T209 VIFT-4
T210 VIFT-T4
T211 VIFT-5
T212 RFC
T213 4.5MHz SOUND TRAP
SND REJ
D201 1T261 VIDEO DET
Q204 2SC1363 1st VIDEO
Q209 2SC1363
Q208 2SA677 VIF AGC
Q207 2SC1363 AGC AMP-2
Q206 2SC1363 AGC AMP-1
Q205 2SC1363 ANC
D202 1T40 ANC
D203 1T40 AGC DET
DET OUT
UHF
D
A-1345-054-A
Q514 2SC634A LA AMP
Q515 2SC634A LA OUT
D509 HF1Z LA RECT
Q301 2SC403C BPA-1
Q302 2SC403C ACC
T301 TOT
T302 BPT-1
B
A-1135-037-A
BRIGHT. PICTURE min. ~ max.
Q451 2SC633A Y. AMP
D451 1S2076A H. BLK
Q452 2SC633A ABL
Q453 2SC633A Y. DRIVE
Q454 2SC633A BLK
L454 4.43MHz TRAP
Q303 2SC403C BURST AMP
Q304 2SC403C CW DRIVE
Q305 2SC403C CW AMP
Q306 2SC403C CW OSC
T303 BAT
T304 COT
X301 Xtal
DMP
IDP
Q307 2SA677 SYNC SEP
D301 1T40 ACC DET
Q308 2SC633A KILLER
ACC
D302, 303 1T40 I.D DET
Q309 2SC403C 7.8KHz AMP
Q310 2SC633A I.D AMP
D304 1T40 I.D TRIG
Q311 2SC633A FF-1
Q312 2SC633A FF TRIG
Q315 2SC633A V. AMP-1
Q316 2SC633A V. AMP-2
Q317 2SC633A BUF-3
Q318 2SC403C BUF-4
VSB
D305, 306 1T40 FF TRIG
D307, 308 1T40 SW
Q313 2SC403C BPA-2
T305 BPT-2
Q314 2SC403C BUF-1
DL301 1H
T306 DAT
SMB
Q319 2SC633A BUF-2
Q320 2SC633A U. AMP
Q321 2SC633A BUF-5
Q322 2SC403C BUF-6
D309, 310 1T40 B-Y DEM
D311, 312 1T40 G-Y DEM
D313, 314 1T40 G-Y DEM
D315, 316 1T40 R-Y DEM
Q455 2SA677 B-Y DRIVE
Q456 2SA677 G-Y DRIVE
Q457 2SA677 R-Y DRIVE
B.DRIVE
B.BKG
G.DRIVE
G.BKG
R.DRIVE
R.BKG
V901 PICTURE TUBE 470FWB22B
KB
KG
KR
G1
G2
G4
HV
CV
25kV at zero beam current
chassis
C
A-1330-055-A
SCRN
FOCUS
SG701
SG702
SG703
SG704
SG705
SG706
D701 HF1C
Q701 2SC1127 G. OUT
Q702 2SC1127 R. OUT
Q703 2SC1127 B. OUT
D807 V11N G2 RECT
D804 S34 18V RECT
D801, 802 HF1Z H. CENT
D812 RD11E PROTECT
T802 PCT
T801 HOT
H.SIZE
H.CENT
L801 DCC
D803 HF1 30V RECT
480mA
200mA
T803 HDT
D805 S1B01-02 H. DRIVE
D806 S1D30-15 H. DAMPER
L807 SRC
D808 HF1A BLK RECT
D810 1T40 PROTECT
Q801 2SC633A BLK-2
Q802 2SA677 BLK-3
D809 RD15E BLK ZENER
Q901 SG613 H. OUT
E
A-1345-053-A
T851 FBT
DC851
VR851
H.STAT

SECTION 6
EXPLODED VIEWS

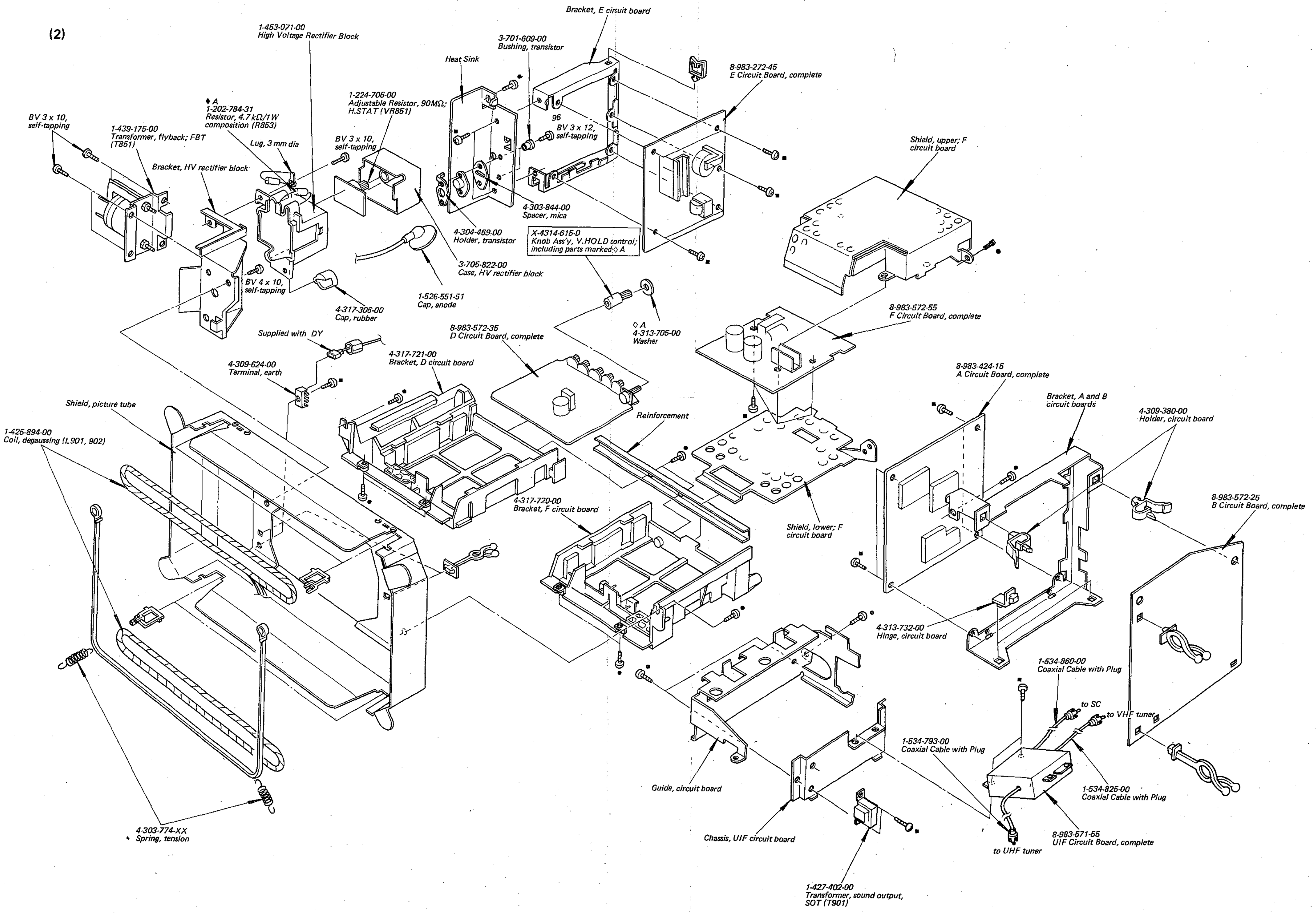
(1)

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.

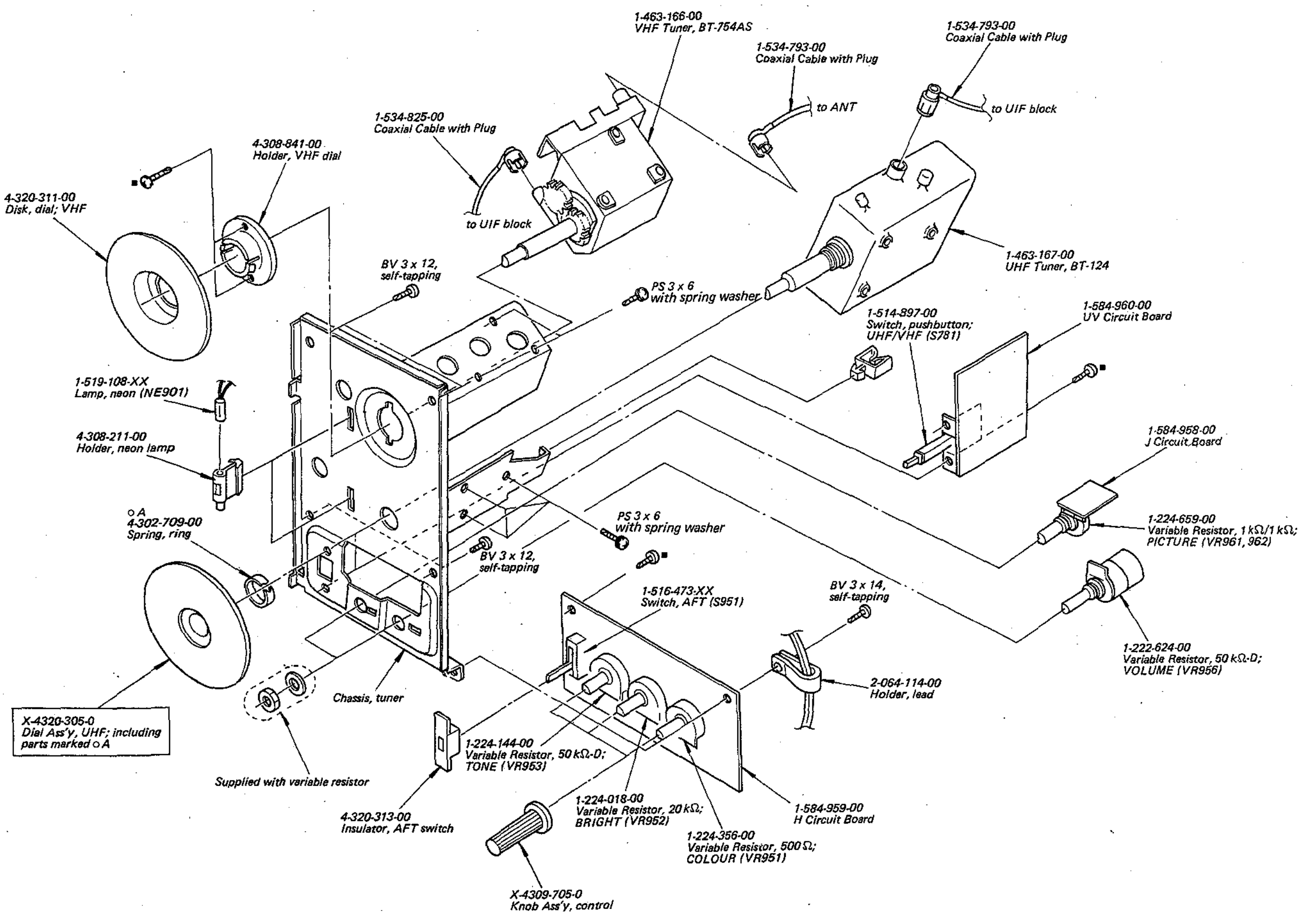

X-4320-303-0 Cabinet Ass'y, including parts marked □A ~ □E
4-320-302-00 Cover, rear
3-701-926-00 Screw, special
BV 4 x 14, self-tapping
3-701-926-00 Screw, special
1-536-500-00 Aerial Terminal Board
4-320-308-00 Cover, aerial terminal board
4-308-820-00 Clamper, feeder
3-701-926-00 Screw, special
4-320-305-00 Guide (1)
□B 4-304-749-00 Nut, flange
BV 4 x 20, self-tapping
Bracket, chassis
4-313-023-00 Support, mains lead
□D X-3701-050-0 Foot Ass'y
1-551-167-00 Mains Lead
□A 4-310-329-11 Handle, carrying
Support, picture tube
4-320-306-00 Guide (2)
□B 4-304-749-00 Nut, flange
4-306-034-00 Nut, flange; 5 mm dia
4-306-034-00 Nut, flange; 5 mm dia
□A 4-310-329-11 Handle, carrying
1-526-551-51 Cap, anode
1-526-086-XX Socket, picture tube
1-452-060-21 Magnet, HMC/VMC
8-736-902-05 Picture Tube, 470FWB22B
4-312-568-00 Holder, deflection yoke
1-452-090-00 Neck Ass'y (L905)
8-983-272-85 C Circuit Board, complete
1-451-125-00 Deflection Yoke, DY; including CY (L903)
□B 4-304-749-00 Nut, flange
□C 4-304-851-00 Screw, self-tapping; P 4 x 25 (with washer)
Support, picture tube
4-305-312-00 Washer, picture tube
4-303-822-00 Cushion, picture tube
▲K 4-308-878-XX Cushion (A), picture tube
P 4 x 16, self-tapping
Bracket (A), picture tube
▲L 4-308-878-XX Cushion (B), picture tube
4-305-312-00 Washer, picture tube
Bracket (B), picture tube
P 4 x 16, self-tapping
BV 3 x 10, self-tapping
4-303-822-00 Cushion, picture tube
4-303-822-00 Cushion, picture tube
X-4320-301-0 Mask Ass'y, front; including parts marked ▲A ~ ▲L
Bracket (B), picture tube
P 4 x 16, self-tapping
4-305-312-00 Washer, picture tube
4-303-822-00 Cushion, picture tube
P 4 x 16, self-tapping
BV 3 x 10 self-tapping
BV 3 x 12, self-tapping
Bracket (A), picture tube
BV 4 x 10, self-tapping
BV 4 x 10, self-tapping
1-502-279-XX Speaker (SP901)
See EXPLODED VIEW (3).
▲B 4-303-704-00 Emblem, SONY
▲I 4-312-816-11 Ring, ornamental; AUTO switch
4-312-823-00 Knob, AUTO switch
▲A X-4315-006-2 Frame Ass'y, ornamental; channel selector
4-308-859-00 Knob, fine tuning
▲D 4-308-895-00 Cushion, control lid
▲C X-4320-304-0 Plate Ass'y, ornamental; control
▲J 4-315-005-00 Plate, transparent
X-4308-809-0 Knob Ass'y, VHF channel selector, including parts marked ⊕A
⊕A 4-306-393-00 Spring
△A 4-302-838-00 Spring
9-911-868-XX Knob Ass'y, control
4-308-862-11 Label, earpiece
▲H 4-320-303-00 Label, controls
▲F 4-310-305-00 Spring, torsion
▲GA 4-320-309-00 Label, control
BV 3 x 12, self-tapping
1-507-372-00 Jack, earpiece (J901A, B)
X-4311-508-0 Knob Ass'y, UHF channel tuning; including parts marked △A
▲E 3-701-927-00 Label, fine tuning
▲G X-4320-302-0 Lid Ass'y, control; including parts marked ▲GA
X-3409-608-0 Permalloy Ass'y, convergence compensation
□E X-4315-014-0 Table Ass'y, including parts marked □EA
□EA 4-307-424-00 Cushion
1-452-032-00 Magnet, disk; 10 mm dia
1-452-094-00 Magnet, rotatable disk; 15 mm dia
4-308-870-00 Clip, lead wire

(2)


1-453-071-00
High Voltage Rectifier Block
Bracket, E circuit board
3-701-609-00
Bushing, transistor
Heat Sink
8-983-272-45
E Circuit Board, complete
♦ A
1-202-784-31
Resistor, 4.7 kΩ/1W
composition (R853)
1-224-706-00
Adjustable Resistor, 90MΩ;
H.STAT (VR851)
BV 3 x 10,
self-tapping
1-439-175-00
Transformer, flyback; FBT
(T851)
Lug, 3 mm dia
BV 3 x 10,
self-tapping
96
BV 3 x 12,
self-tapping
Shield, upper; F
circuit board
Bracket, HV rectifier block
4-303-844-00
Spacer, mica
4-304-469-00
Holder, transistor
X-4314-615-0
Knob Ass'y, V.HOLD control;
including parts marked ◇ A
3-705-822-00
Case, HV rectifier block
BV 4 x 10,
self-tapping
1-526-551-51
Cap, anode
4-317-306-00
Cap, rubber
◇ A
4-313-705-00
Washer
8-983-572-55
F Circuit Board, complete
Supplied with DY
8-983-572-35
D Circuit Board, complete
4-317-721-00
Bracket, D circuit board
4-309-624-00
Terminal, earth
8-983-424-15
A Circuit Board, complete
Bracket, A and B
circuit boards
4-309-380-00
Holder, circuit board
Shield, picture tube
Reinforcement
1-425-894-00
Coil, degaussing (L901, 902)
8-983-572-25
B Circuit Board, complete
4-317-720-00
Bracket, F circuit board
Shield, lower; F
circuit board
4-313-732-00
Hinge, circuit board
1-534-860-00
Coaxial Cable with Plug
to SC
to VHF tuner
1-534-793-00
Coaxial Cable with Plug
1-534-825-00
Coaxial Cable with Plug
Guide, circuit board
Chassis, UIF circuit board
8-983-571-55
UIF Circuit Board, complete
to UHF tuner
4-303-774-XX
Spring, tension
1-427-402-00
Transformer, sound output,
SOT (T901)

Note: ■: BV 3 x 8, self-tapping
●: BV 4 x 12, self-tapping

(3)


1-463-166-00
VHF Tuner, BT-754AS
1-534-793-00
Coaxial Cable with Plug
to ANT
1-534-793-00
Coaxial Cable with Plug
to UIF block
1-534-825-00
Coaxial Cable with Plug
to UIF block
4-308-841-00
Holder, VHF dial
■
4-320-311-00
Disk, dial; VHF
BV 3 x 12,
self-tapping
PS 3 x 6
with spring washer
1-463-167-00
UHF Tuner, BT-124
1-514-897-00
Switch, pushbutton;
UHF/VHF (S781)
1-584-960-00
UV Circuit Board
■
1-519-108-XX
Lamp, neon (NE901)
4-308-211-00
Holder, neon lamp
1-584-958-00
J Circuit Board
○ A
4-302-709-00
Spring, ring
PS 3 x 6
with spring washer
1-224-659-00
Variable Resistor, 1 kΩ/1 kΩ;
PICTURE (VR961, 962)
BV 3 x 12,
self-tapping
■
1-516-473-XX
Switch, AFT (S951)
BV 3 x 14,
self-tapping
1-222-624-00
Variable Resistor, 50 kΩ-D;
VOLUME (VR956)
2-064-114-00
Holder, lead
Chassis, tuner
X-4320-305-0
Dial Ass'y, UHF; including
parts marked ○ A
1-224-144-00
Variable Resistor, 50 kΩ-D;
TONE (VR953)
Supplied with variable resistor
1-224-018-00
Variable Resistor, 20 kΩ;
BRIGHT (VR952)
1-584-959-00
H Circuit Board
4-320-313-00
Insulator, AFT switch
1-224-356-00
Variable Resistor, 500 Ω;
COLOUR (VR951)
X-4309-705-0
Knob Ass'y, control

Note: ■: BV 3 x 8, self-tapping

SECTION 7
ELECTRICAL PARTS LIST

TUNERS AND CIRCUIT BOARDS

Ref. No.	*Part No.*	*Description*
	1-463-166-00	VHF Tuner, BT-754AS
	1-463-167-00	UHF Tuner, BT-124
	1-584-958-00	J Circuit Board
	1-584-959-00	H Circuit Board
	1-584-960-00	UV Circuit Board
	8-983-272-45	E Circuit Board, complete
	8-983-272-85	C Circuit Board, complete
	8-983-424-15	A Circuit Board, complete
	8-983-571-55	UIF Circuit Board, complete
	8-983-572-25	B Circuit Board, complete
	8-983-572-35	D Circuit Board, complete
	8-983-572-55	F Circuit Board, complete

SEMICONDUCTORS

Transistors

Ref. No.	*Part No.*	*Description*
Q201, 202		2SC1129
Q203		2SC1128
Q204~207		2SC1363
Q208		2SA677
Q209, 210		2SC1363
Q211		2SA677
Q212		2SC1363
Q213		2SC926A
Q214		2SC1663
Q215		2SA835
Q301		2SC403C
Q302		2SC633A
Q303~306		2SC403C
Q307		2SA677
Q308		2SC633A
Q309		2SC403C
Q310~312		2SC633A
Q313, 314		2SC403C
Q315~317		2SC633A
Q318		2SC403C
Q319~321		2SC633A
Q322		2SC403C
Q451~454		2SC633A
Q455~457		2SA677
Q501		2SC1670
Q502		2SC1663
Q503		2SA835
Q507		2SC634A
Q508		2SC1670
Q509		2SA733
Q510		2SC1810
Q512		2SA733
Q513		2SC1124
Q514, 515		2SC634A
Q516		2SA677
Q601, 602		2SA677
Q603~605		2SC633A
Q606		2SC1670
Q607		2SC867
Q608		2SC633A
Q701~703		2SC1127
Q751		2SC1129
Q752		2SC1128
Q781		2SA677
Q782		2SC633A
Q783		2SA677
Q801		2SC633A
Q802		2SA677
Q901		SG613

Diodes

Ref. No.	*Part No.*	*Description*
D201		1T261
D202, 203		1T40
D204		1T261
D301~316		1T40

Ref. No.	*Part No.*	*Description*
D451		1S2076A
D501		1T40
D502		SIB01-02
D503		1T40
D504～507		SIB01-02
D508		1T40
D509		HF1Z
D601～604		U05G
D605		EQB01-12R
D606, 607		1T40
D609		HF1Z
D610		S34
D611		HF1Z
D612		1T40
D613		HF1C
D614		HF1Z
D615		EQA01-12R
D701		HF1C
D751, 752		1S2222
D801, 802		HF1Z
D803		HF1
D804		S34
D805		SIB01-02
D806		SID30-15
D807		V11N
D808		HF1A
D809		RD15E
D810		1T40
D812		RD11E
D951		1T40

ICs

IC201		CX095A
IC202		M5134P
IC501		CX157
IC502		CX158

Ref. No.	*Part No.*	*Description*

Miscellaneous

PR601	1-800-362-00	Thermistor (positive)
Th201	1-800-198-XX	Thermistor, S-1000
Th501	⇒1-800-070-XX	Thermistor, TH-4700
Th601	1-800-356-00	Thermistor
Th602, 603	1-800-070-XX	Thermistor, TH-4700
Th781	1-800-071-XX	Thermistor, TH-350

COILS

All coils are microinductor unless otherwise noted.

L201～204	1-407-184-XX	3.3 μH
L205	1-407-187-XX	5.6 μH
L206	1-407-157-XX	10 μH
L207	1-407-171-XX	150 μH
L208	1-407-189-XX	8.2 μH
L209	1-407-184-XX	3.3 μH
L210	1-407-158-XX	12 μH
L211	1-407-186-XX	4.7 μH
L212	1-403-810-00	AFT-T3
L213	1-403-811-00	AFT-T4
L214	1-407-168-XX	82 μH
L215	1-407-193-XX	680 μH
L216	1-407-187-XX	5.6 μH
L301	1-407-166-XX	56 μH
L302	1-407-189-XX	8.2 μH
L303	1-407-166-XX	56 μH
L304	1-407-191-XX	470 μH
L305	1-407-204-XX	6.8 mH
L306	1-407-240-00	Identification, IDC
L307	1-407-157-XX	10 μH
L308	1 407-189-XX	8.2 μH
L309	1-407-162-XX	27 μH
L310	1-407-163-XX	33 μH
L311～313	1-407-191-XX	470 μH

⇒: Due to replacement parts, the values are different on the diagrams.

Ref. No.	*Part No.*	*Description*
L451, 452	1-407-165-XX	47 μH
L453	1-407-167-XX	68 μH
L454	1-409-193-00	4.43 MHz Trap
L455	1-407-193-XX	680 μH
L501	1-407-207-XX	12 mH
L502	1-443-012-00	Dynamic Convergence Choke, DCC-V
L503	1-407-207-XX	12 mH
L504	1-407-556-00	6.8 μH, spook choke
L505	1-407-364-00	3.3 μH, spook choke
L601	1-407-188-XX	6.8 μH
L602	1-421-249-00	68 μH, spook choke
L603	1-407-556-00	6.8 μH, spook choke
L604	1-407-720-00	100 μH, spook choke
L605	1-407-365-00	0.74 μH, spook choke
L606	1-407-556-00	6.8 μH, spook choke
L607	1-407-158-XX	Spook Choke
L801	1-459-075-00	Dynamic Convergence Choke, DCC
L802	1-459-148-00	Horizontal Centering, HCC
L803	1-459-147-00	Horizontal Linearity, HLC
L804	1-407-364-00	Spook Choke
L805	1-407-780-00	3.3 μH, spook choke
L806	1-407-365-00	0.74 μH, spook choke
L807	1-413-027-00	Sine Resonance, SRC
L808	1-407-364-00	3.3 μH, spook choke
L901, 902	1-425-894-00	Degaussing, DGC
L903	1-451-125-00	Deflection Yoke, DY; including CY
L905	1-452-090-00	Neck Ass'y
DL301	1-415-075-00	Delay Line
DL451	1-415-099-00	Delay Line

TRANSFORMERS

Ref. No.	*Part No.*	*Description*
T201	1-409-225-00	VIFT-T1
T202	1-409-269-00	VIFT-T5
T203	1-403-949-00	VIFT-6
T204	1-409-270-00	VIFT-T2
T205	1-409-291-00	VIFT-T3
T206	1-403-947-00	VIFT-1
T207	1-403-948-00	VIFT-2
T208	1-403-729-00	VIFT-3
T209	1-403-729-00	VIFT-4
T210	1-409-289-00	VIFT-T4
T211	1-403-730-00	VIFT-5
T212	1-425-504-00	Coil, RFC
T213	1-409-235-00	5.5 MHz Sound Trap
T214	1-403-843-00	SIFT-3
T301	1-425-678-00	Take-off, TOT
T302	1-403-845-00	First Band Pass, BPT-1
T303	1-405-372-00	Burst Amplifier, BAT
T304	1-425-618-00	Cw Oscillation, COT
T305	1-425-883-00	Second Band Pass, BPT-2
T306	1-425-832-00	Delay Adjustment, DAT
T601	1-413-028-00	Switching Regulator, SRT
T602	1-437-066-00	Regulator Drive, RDT
T603	1-441-855-00	Line Filter, LFT
T751	1-403-729-00	UIFT-3
T753	1-403-729-00	UIFT-2
T801	1-439-176-00	Horizontal Output, HOT
T802	1-421-320-00	Pincushion Correction, PCT
T803	1-437-065-00	Horizontal Drive, HDT
T851	1-439-175-00	Flyback, FBT
T901	1-427-402-00	Sound Output, SOT

CAPACITORS

All capacitors are in μF and ceramic type unless otherwise noted. 50 V or less working voltages are omitted except for electrolytic type. p = μμF. *elect = electrolytic*

C107	1-121-257-11	4.7	16 V	elect
C108, 109	1-121-398-11	10	25 V	elect
C201	1-102-904-11	110 p		
C202	1-102-963-11	33 p		

Ref. No.	*Part No.*	*Description*		
C203	1-102-604-11	33 p		
C204	1-102-820-11	330 p		
C205	1-102-125-11	0.0047		
C206	1-102-935-11	2 p		
C207, 208	1-102-125-11	0.0047		
C209	1-102-129-11	0.01		
C210	1-102-935-11	2 p		
C211 ～ 215	1-102-125-11	0.0047		
C216, 217	1-121-402-11	33	10 V	elect
C218	1-102-125-11	0.0047		
C219	1-102-935-11	2 p		
C220	1-102-858-11	10 p		
C221, 222	1-102-125-11	0.0047		
C223	1-102-963-11	33 p		
C224	1-102-934-11	1 p		
C225	1-102-947-11	10 p		
C226, 227	1-102-125-11	0.0047		
C228	1-121-402-11	33	10 V	elect
C229	1-102-125-11	0.0047		
C230	1-102-824-11	470 p		
C231, 232	1-121-402-11	33	10 V	elect
C233	1-108-630-12	0.022	100 V	mylar
C234, 235	1-121-393-11	3.3	50 V	elect
C236	1-121-395-11	4.7	25 V	elect
C237	1-102-947-11	10 p		
C238	1-102-973-11	100 p		
C239	1-121-426-11	470	16 V	elect
C240	1-102-129-11	0.01		
C241	1-101-455-11	0.001		
C242	1-101-006-11	0.047		
C243	1-102-667-11	13 p		
C244	1-101-004-11	0.01		
C245	1-102-108-11	150 p		
C246	1-121-651-11	10	16 V	elect
C247	1-108-634-12	0.047	100 V	mylar
C248	1-121-391-11	1	50 V	elect
C249	1-121-757-11	33	160 V	elect
C250	1-121-726-11	0.47	50 V	elect

Ref. No.	*Part No.*	*Description*		
C251	1-108-624-12	0.0068	100 V	mylar
C252	1-101-810-11	100 p	500 V	
C253	1-102-112-11	330 p		
C254	1-121-450-11	2.2	50 V	elect
C255	1-121-999-11	10	160 V	elect
C256	1-102-940-11	3 p		
C257	1-102-947-11	10 p		
C258	1-102-942-11	5 p		
C259, 260	1-102-125-11	0.0047		
C261	1-102-043-11	1000 p	500 V	feed-through
C262 ～ 264	1-102-125-11	0.0047		
C265	1-101-576-11	1.5 p		
C266	1-102-527-11	82 p		
C267	1-102-492-11	56 p		
C269	1-102-951-11	15 p		
C270	1-121-391-11	1	50 V	elect
C271	1-102-973-11	100 p		
C272	1-121-422-11	220	25 V	elect
C273	1-102-125-11	0.0047		
C274	1-101-880-11	47 p		
C301	1-102-889-11	39 p		
C302, 303	1-101-004-11	0.01		
C304	1-102-941-11	4 p		
C305	1-121-413-11	100	6.3 V	elect
C306	1-101-006-11	0.047		
C307	1-101-004-11	0.01		
C308	1-101-006-11	0.047		
C309	1-102-965-11	39 p		
C310	1-102-941-11	4 p		
C311	1-102-888-11	150 p		
C312	1-121-395-11	4.7	25 V	elect
C313, 314	1-101-006-11	0.047		
C315	1-101-576-11	1.5 p		
C316	1-102-961-11	27 p		
C317	1-102-963-11	33 p		
C318	1-102-958-11	20 p		
C319	1-102-116-11	680 p		
C320, 321	1-101-004-11	0.01		
C322	1-102-959-11	22 p		

Ref. No.	*Part No.*	*Description*		
C323, 324	1-102-963-11	33 p		
C325	1-101-004-11	0.01		
C326	1-101-880-11	47 p		
C327	1-101-004-11	0.01		
C328	1-101-006-11	0.047		
C329	1-102-676-11	68 p		
C330	1-102-963-11	33 p		
C331	1-121-398-11	10	25 V	elect
C332	1-102-074-11	0.001		
C333	1-102-121-11	0.0022		
C334	1-102-973-11	100 p		
C335	1-102-117-11	820 p		
C336	1-121-391-11	1	50 V	elect
C337	1-121-651-11	10	16 V	elect
C338, 339	1-101-006-11	0.047		
C340	1-121-450-11	2.2	50 V	elect
C341	1-101-004-11	0.01		
C342	1-102-973-11	100 p		
C343, 344	1-101-888-11	68 p		
C345, 346	1-102-934-11	1 p		
C347	1-101-004-11	0.01		
C348	1-121-398-11	10	25 V	elect
C349	1-108-630-12	0.022	100 V	mylar
C350	1-121-391-11	1	50 V	elect
C351～353	1-108-630-12	0.022	100 V	mylar
C354	1-121-395-11	4.7	25 V	elect
C355～357	1-102-116-11	680 p		
C358, 359	1-102-973-11	100 p		
C360	1-102-116-11	680 p		
C361	1-101-006-11	0.047		
C362	1-101-004-11	0.01		
C363	1-121-398-11	10	25 V	elect
C364	1-102-947-11	10 p		
C365	1-102-849-11	62 p		
C366	1-101-006-11	0.047		
C367	1-102-678-11	100 p		
C368～374	1-101-004-11	0.01		
C375, 376	1-102-978-11	220 p		

Ref. No.	*Part No.*	*Description*		
C377	1-101-004-11	0.01		
C378	1-102-961-11	27 p		
C379	1-101-004-11	0.01		
C380	1-101-006-11	0.047		
C381	1-121-391-11	1	50 V	elect
C382	1-101-004-11	0.01		
C383	1-101-006-11	0.047		
C384	1-102-961-11	27 p		
C385	1-101-004-11	0.01		
C386, 387	1-121-391-11	1	50 V	elect
C388	1-121-415-11	100	16 V	elect
C389	1-101-006-11	0.047		
C390, 391	1-101-884-11	56 p		
C392～397	1-102-961-11	27 p		
C398, 399	1-101-884-11	56 p		
C400	1-102-121-11	0.0022		
C401～403	1-102-959-11	22 p		
C404	1-102-888-11	150 p		
C405	1-102-935-11	2 p		
C451	1-121-398-11	10	25 V	elect
C452	1-102-822-11	390 p		
C453	1-102-820-11	330 p		
C454	1-102-959-11	22 p		
C455, 456	1-102-662-11	7 p		
C457, 458	1-121-450-11	2.2	50 V	elect
C459, 460	1-121-726-11	0.47	50 V	elect
C461	1-101-004-11	0.01		
C462	1-102-002-11	680 p	500 V	
C463	1-102-116-11	680 p		
C464	1-102-115-11	560 p		
C465	1-102-116-11	680 p		
C466	1-102-115-11	560 p		
C467	1-102-116-11	680 p		
C468	1-102-115-11	560 p		
C469	1-121-422-11	220	25 V	elect
C501	1-121-391-11	1	50 V	elect
C502, 503	1-108-622-12	0.0047	100 V	mylar
C504	1-121-245-11	1000	16 V	elect

Ref. No.	*Part No.*	*Description*		
C505	1-108-630-12	0.022	100 V	mylar
C506	1-108-638-12	0.1	100 V	mylar
C507	1-102-125-11	0.0047		
C508	1-121-738-11	10	50 V	elect
C509	1-108-692-12	0.01	200 V	mylar
C510	1-123-174-11	4.7	160 V	elect
C511	1-108-696-12	0.022	200 V	mylar
C512	1-121-479-11	22	16 V	elect
C513	1-121-810-11	470	50 V	elect
C514	1-108-644-12	0.33	100 V	mylar
C515	1-108-638-12	0.1	100 V	mylar
C516, 517	1-108-630-12	0.022	100 V	mylar
C518	1-108-634-12	0.047	100 V	mylar
C519	1-108-614-12	0.001	100 V	mylar
C520	1-121-391-11	1	50 V	elect
C521	1-101-810-11	100 p	500 V	
C522	1-108-632-12	0.033	100 V	mylar
C523	1-108-694-12	0.015	200 V	mylar
C524	1-121-391-11	1	50 V	elect
C525	1-121-970-11	47	16 V	elect
C526	1-121-986-11	2.2	50 V	elect
C527	1-108-630-12	0.022	100 V	mylar
C528	1-108-623-12	0.0056	100 V	mylar
C529	1-108-630-12	0.022	100 V	mylar
C530	1-121-392-11	3.3	25 V	elect
C531	1-129-927-11	0.015	100 V	polyethylene
C532	1-121-395-11	4.7	25 V	elect
C533	1-106-188-51	0.0047	100 V	mylar
C534	1-102-832-11	330 p		
C535	1-108-638-12	0.1	100 V	mylar
C536	1-101-810-11	100 p	500 V	
C537	1-121-955-11	10	50 V	elect
C538	1-121-971-11	100	16 V	elect
C539	1-121-416-11	100	25 V	elect
C541	1-121-409-11	47	16 V	elect
C542	1-121-425-11	470	10 V	elect
C543	1-121-391-11	1	50 V	elect
C544	1-102-233-11	33 p	500 V	

Ref. No.	*Part No.*	*Description*		
C545	1-102-975-11	100 p		
C546	1-102-233-11	33 p	500 V	
C547	1-121-726-11	0.47	50 V	elect
C549	1-102-030-11	330 p	500 V	
C550	1-101-001-11	0.001		
C551	1-121-986-11	2.2	50 V	elect
C601	1-108-745-12	0.22	300 V	mylar
C602~605	1-102-085-11	0.0047	500 V	
C606	1-123-128-11	120	400 V	elect
C607	1-102-050-11	0.01	500 V	
C608	1-102-030-11	330 p	500 V	
C609	1-121-726-11	0.47	50 V	elect
C610	1-121-419-11	220	6.3 V	elect
C612	1-121-392-11	3.3	25 V	elect
C613	1-108-690-12	0.0068	200 V	mylar
C614	1-130-017-11	820 p	50 V	polyethylene
C615	1-130-026-11	0.0047	50 V	polyethylene
C616	1-108-630-12	0.022	100 V	mylar
C617	1-102-989-11	68 p	500 V	
C618	1-101-001-11	0.001		
C619	1-102-106-11	100 p		
C620	1-123-024-11	33	160 V	elect
C621	1-123-128-11	120	400 V	elect
C622	1-102-050-11	0.01	500 V	
C623, 624	1-102-327-11	330 p	1.5 kV	
C626	1-121-416-11	100	25 V	elect
C627	1-130-007-11	0.47	400 V	polyethylene
C628	1-102-989-11	68 p	500 V	
C629	1-102-002-11	680 p	500 V	
C701	1-102-327-11	330 p	1.5 kV	
C704	1-129-739-11	0.1	630 V	polyethylene
C705	1-129-779-11	0.022	1 kV	polyethylene
C707	1-102-244-11	220 p	500 V	
C708	1-108-702-12	0.068	200 V	mylar
C709	1-121-759-11	4.7	250 V	elect
C751, 753 C755, 756 C758 C760~763	1-102-125-11	0.0047		

Ref. No.	*Part No.*	*Description*		
C764～767	1-102-043-11	1000p	500 V	feed-through
C781	1-121-395-11	4.7	25 V	elect
C801	1-108-640-12	0.15	100 V	mylar
C802, 803	1-123-173-11	100	16 V	elect
C804	1-101-455-11	0.001		
C805, 806	1-108-626-12	0.01	100 V	mylar
C807	1-121-656-11	330	50 V	elect
C808	1-130-037-11	0.51	400 V	polyethylene
C809	1-123-024-11	33	160 V	elect
C810	1-108-632-12	0.033	100 V	mylar
C811	1-108-626-12	0.01	100 V	mylar
C812	1-102-327-11	330 p	1.5 kV	
C813	1-129-924-11	16,000 p	1.5 kV	polyethylene
C814	1-130-041-11	27,000 p	1 kV	polyethylene
C815	1-130-042-11	69,000 p	1 kV	polyethylene
C816	1-121-759-11	4.7	250 V	elect
C817	1-129-953-11	0.068	1.5 kV	polyethylene
C821	1-108-638-12	0.1	100 V	mylar
C822	1-102-327-11	330 p	1.5 kV	
C823	1-102-038-11	0.001	500 V	
C824	1-102-327-11	330 p	1.5 kV	
C825	1-101-006-11	0.047		
C901	1-102-327-11	330 p	1.5 kV	
VC201	1-141-138-XX	8 p		trimmer

RESISTORS

All resistors are in ohms. Regular-type ¼W carbon resistors are omitted. Check schematic diagram for values.
All adjustable and variable resistors have characteristic curve B, unless otherwise noted. k = 1000 M = 1000 k

Ref. No.	*Part No.*	*Description*		
R255	1-211-933-11	47	⅛ W	carbon (nonflammable)
R262, 263	1-244-837-11	33	½ W	carbon
R264, 265	1-244-859-11	270	½ W	carbon
R375	1-211-931-11	68	⅛ W	carbon (nonflammable)
R472	1-244-893-11	6.8 k	½ W	carbon
R509	1-206-656-11	470	2 W	metal oxide (nonflammable)
R510	1-211-929-11	82	⅛ W	carbon (nonflammable)
R511	1-244-875-11	1.2 k	½ W	carbon
R512	1-211-930-11	33	⅛ W	carbon (nonflammable)
R514, 515	1-212-361-11	1.2	1 W	metal oxide (nonflammable)
R520	1-212-360-11	1	1 W	metal oxide (nonflammable)
R521	1-213-140-11	560	1 W	metal oxide (nonflammable)
R522	1-213-142-11	820	1 W	metal oxide (nonflammable)
R523	1-244-897-11	10 k	½ W	carbon
R534	1-244-875-11	1.2 k	½ W	carbon
R535	1-244-837-11	33	½ W	carbon
R537	1-244-873-11	1 k	½ W	carbon
R539	1-244-865-11	470	½ W	carbon
R542	1-244-905-11	22 k	½ W	carbon
R551	1-244-873-11	1 k	½ W	carbon
R561	1-213-130-11	82	1 W	metal oxide (nonflammable)
R578	1-206-642-11	120	2 W	metal oxide (nonflammable)
R579	1-206-485-11	82	2 W	metal oxide (nonflammable)
R580, 581	1-213-136-11	270	1 W	metal oxide (nonflammable)
R591	1-213-138-11	390	1 W	metal oxide (nonflammable)
R601	1-217-318-11	470	5 W	wirewound (nonflammable)
R602	1-217-328-11	2.7	7 W	wirewound (nonflammable)
R603	1-257-935-11	390 k	½ W	carbon
R604, 605	1-213-163-11	47 k	1 W	metal oxide (nonflammable)
R606	1-202-655-31	2.7 M	½ W	composition
R607	1-206-700-11	33 k	2 W	metal oxide (nonflammable)

Ref. No.	*Part No.*	*Description*		
R609	1-213-163-11	47 k	1 W	metal oxide (nonflammable)
R617	1-206-896-11	33 k	7 W	metal oxide (nonflammable)
R628	1-212-360-11	1	1 W	metal oxide (nonflammable)
R634	1-210-859-11	1.2	⅛ W	carbon (nonflammable)
R635	1-244-917-11	68 k	½ W	carbon
R638	1-210-859-11	1.2	⅛ W	carbon (nonflammable)
R639	1-212-361-11	1.2	1 W	metal oxide (nonflammable)
R641	1-213-163-11	47 k	1 W	metal oxide (nonflammable)
R642	1-206-833-11	82 k	5 W	metal oxide (nonflammable)
R704～706	1-206-692-11	15 k	2 W	metal oxide (nonflammable)
R707～709	1-202-585-31	3.3 k	½ W	composition
R711	1-202-629-31	220 k	½ W	composition
R719	1-202-637-31	470 k	½ W	composition
R720	1-202-639-31	560 k	½ W	composition
R721	1-202-633-31	330 k	½ W	composition
R722	1-202-620-31	91 k	½ W	composition
R723	1-202-629-31	220 k	½ W	composition
R724, 725	1-202-639-31	560 k	½ W	composition
R726	1-202-637-31	470 k	½ W	composition
R727, 728	1-202-629-31	220 k	½ W	composition
R730	1-202-543-31	56	½ W	composition
R801	1-206-473-11	27	2 W	metal oxide (nonflammable)
R802	1-206-642-11	120	2 W	metal oxide (nonflammable)
R803	1-210-859-11	1.2	⅛ W	carbon (nonflammable)
R804	1-211-401-11	4.7	⅛ W	carbon (nonflammable)
R807	1-205-532-11	3.3	10 W	cement-coated
R808	1-211-421-11	39	⅛ W	carbon (nonflammable)

Ref. No.	*Part No.*	*Description*		
R809, 810	1-206-475-11	33	2 W	metal oxide (nonflammable)
R811	1-244-859-11	270	½ W	carbon
R812	1-206-469-11	18	2 W	metal oxide (nonflammable)
R813	1-217-287-11	1.2	5 W	wirewound (nonflammable)
R814	1-202-629-31	220 k	½ W	composition
R816	1-206-676-11	3.3 k	2 W	metal oxide (nonflammable)
R817	1-211-945-11	2.2 k	¼ W	carbon (nonflammable)
R818	1-244-897-11	10 k	½ W	carbon
R820	1-206-696-11	22 k	2 W	metal oxide (nonflammable)
R821	1-213-150-11	3.9 k	1 W	metal oxide (nonflammable)
R851	1-202-776-31	1 k	1 W	composition
R852	1-202-589-31	4.7 k	½ W	composition
R853	1-202-784-31	4.7 k	1 W	composition
※R904	1-207-457-11	0.33	½ W	wirewound
	1-207-462-11	0.82	½ W	wirewound
	1-207-465-11	1.5	½ W	wirewound
	1-207-469-11	3.3	½ W	wirewound
VR201	1-224-641-XX	470, adjustable; SND ADJ		
VR202	1-224-642-XX	1 k, adjustable; DET OUT		
VR203	1-224-643-XX	2.2 k, adjustable; UHF AGC		
VR204	1-224-643-XX	2.2 k, adjustable; VHF AGC		
VR301	⇒ 1-224-644-XX	4.7 k, adjustable; DMP		
VR302	1-224-644-XX	4.7 k, adjustable; IDP		
VR303	1-224-642-XX	1 k, adjustable; ACC		
VR304	1-224-640-XX	330, adjustable; SMD		
VR305	1-224-640-XX	330, adjustable; VSB		
VR451	1-224-640-XX	330, adjustable; B. DRIVE		
VR452	1-221-389-XX	5 k, adjustable; B. BKG		
VR453	1-224-640-XX	330, adjustable; G. DRIVE		
VR454	1-221-389-XX	5 k, adjustable; G. BKG		
VR455	1-224-640-XX	330, adjustable; R. DRIVE		
VR456	1-221-389-XX	5 k, adjustable; R. BKG		

※: to be selected.

⇒ : Due to replacement parts, the values are different on the diagrams.

Ref. No.	*Part No.*	*Description*
VR501	1-224-658-00	20 k, variable; V. HOLD
VR502	1-222-807-XX	20 k, adjustable; V. SIZE
VR503	1-221-970-XX	500, adjustable; V. CENT
VR504	1-221-390-XX	3 k, adjustable; H. SHIFT
VR505	1-221-982-XX	250 k, adjustable; H. AMP
VR506	1-224-646-XX	22 k, adjustable; H. FREQ
VR507	1-221-390-XX	3 k, adjustable; Y. BOW
VR508	1-224-645-XX	10 k, adjustable; PIN BIAS
VR509	1-221-390-XX	3 k, adjustable; PIN AMP
VR601	1-224-643-XX	2.2 k, adjustable; 135 V ADJ
VR704	1-224-150-00	1 M, adjustable; SCRN
VR781	1-224-641-XX	470, adjustable; U. TU. AGC
VR801	1-223-020-00	50, adjustable; H. CENT
VR851	1-224-706-00	90 M, adjustable; H. STAT
VR951	1-224-356-00	500, variable; COLOUR
VR952	1-224-018-00	20 k, variable; BRIGHT
VR953	1-224-144-00	50 k-D, variable; TONE
VR956	1-222-624-00	50 k-D, variable; VOLUME
VR961/962	1-224-659-00	1 k/1 k, variable; PICTURE

MISCELLANEOUS

Ref. No.	*Part No.*	*Description*
CF201	1-527-263-00	Ceramic Filter, 5.5 MHz
DC851	1-453-071-00	High Voltage Rectifier Block
	1-202-784-31	Resistor, 4.7 kΩ 1 W composition(R853)
	1-224-706-00	Adjustable Resistor, 90 MΩ; H. STAT (VR 851)
	1-526-551-51	Cap, anode
	3-705-822-00	Case, HV rectifier block
F601	1-532-237-00	Fuse, 3.15 AT
J901A, B	1-507-372-11	Jack, earpiece
JK201	1-526-522-00	Socket, plug
NE901, 902	1-519-108-XX	Lamp, neon
S781	1-514-897-00	Switch, pushbutton; UHF/VHF
S951	1-516-473-XX	Switch, AFT
SG701~706 SG801	1-519-063-XX	Spark Gap, 1.5 kV
SP901	1-502-279-XX	Speaker
V901	8-736-902-05	Picture Tube, 470FWB22B
X301	1-527-183-00	Crystal
	1-452-032-00	Magnet, disk; 10 mm dia
	1-452-060-21	Magnet, HMC/VMC
	1-452-094-00	Magnet, rotatable disk; 15 mm dia
	1-526-086-XX	Socket, picture tube
	1-526-551-51	Cap, anode
	1-534-793-00	Coaxial Cable with Plug
	1-534-825-00	Coaxial Cable with Plug
	1-534-860-00	Coaxial Cable with Plug
	1-536-500-00	Aerial Terminal Board
	1-551-167-00	Mains Lead

PACKING MATERIALS AND ACCESSORIES

Part No.	*Description*
1-504-034-72	Earpiece (ME-20B)
3-701-352-00	Bag, polyethylene
4-320-314-00	Sheet, protection
4-320-315-00	Carton
4-320-316-00	Cushion, upper; right
4-320-317-00	Cushion, upper; left
4-320-318-00	Cushion, lower; right
4-320-319-00	Cushion, lower; left
4-495-558-51	Manual, instruction

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